

THE DYNAMICS OF RURAL POVERTY



**FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS**

THE DYNAMICS OF
RURAL POVERTY

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

1986

Table of Contents

Acknowledgements

Foreword

Part One

THE INCIDENCE AND CHARACTERISTICS OF RURAL POVERTY

1.	<u>The incidence of rural poverty</u>	3
2.	<u>The characteristics of rural poverty</u>	19
3.	<u>Inequality of income distribution</u>	35

Part Two

EXPLORING THE CAUSAL PROCESS OF RURAL POVERTY

4.	<u>Domestic development policies and rural poverty</u>	47
5.	<u>Agrarian structure and rural employment</u>	65
6.	<u>Economic instability: the impact of world economic recession</u>	86
7.	<u>The influence of multinational corporations</u>	107

Part Three

THE ATTACK ON POVERTY

8.	<u>Anti-poverty development strategies</u>	123
9.	<u>Participation of the rural poor in development</u>	144
10.	<u>Other policy measures</u>	158
11.	<u>The anti-poverty role of FAO</u>	177

Technical appendices

I.	<u>Country experiences in the definition and use of poverty lines</u>	197
II.	<u>Rural development strategies: the experience of China and India</u>	204
III.	<u>Who is the small farmer?</u>	220

This One



QCZY-F8E-FGJS

Acknowledgements

This book has been prepared by FAO with the cooperation of several technical officers and consultants. Dr. M.R. El Ghonemy, chief of the Development Organization and Institutions Service of FAO until his retirement in July, 1985, coordinated the different contributions. Assistance and contributions were provided by Dr. K. Griffin, Prof. Radha Sinha, Dr. Ajit Singh, Prof. R. Tetzlaff, Prof. Godfrey Tyler, Dr. Saiful Huq, Dr. Ronald Clark and Dr. Jennie Dey. Valuable advice was provided by Prof. Hans Singer, Prof. George Peters, Dr. Ashwani Saith, Prof. Gautam Mathur, Dr. Samir Radwan and Prof. Parthasarathy. Dr. Sipho Sibanda, Shantanu Mathur and Bernd Bultemeier carried out research. Graeme Thomas edited the manuscript. Editorial assistance was provided by Kirsten Fjerring, Rina D'Agostino, Nicole Wautiez De Blaye, Luciana Aquilar, Maria Luisa Montuoro and George Thareparambil.

Foreword

Famine is one of humanity's oldest enemies, but when it cast its fearful shadow across Africa in 1984, telecommunications satellites flashed across the world images of death and misery. Never before has the gulf between the "haves" and the "have-nots" of this planet been so starkly demonstrated. People of the developed world witnessed the unspeakable suffering of hundreds of thousands of men, women and children stripped of even the basic necessities of life. The victims were almost always poor rural people - small farmers, landless agricultural labourers, pastoralists and nomads - whose tenuous strategies for survival had broken down under the strain of drought, disease and political instability. Since then, the international community has mobilized to rescue nations from hunger. But while the immediate danger appears to have passed, disturbing questions remain: How many rural people in the world today continue to subsist in absolute poverty, suffering daily the pangs of hunger and living with the threat of famine and disease? What are the roots of this crippling rural poverty and what factors are responsible for its perpetuation? And the most crucial question - how can the vicious poverty trap be destroyed, and the creative potential of a large proportion of humanity released?

This book provides answers. Produced with contributions from eminent scholars and experienced professionals working in the field of rural development, it explores the present dimensions of rural poverty, its characteristics, the causal process behind it, and the anti-poverty strategies and policies needed to eliminate it. From material collected in 60 developing countries, it estimates that at least 700 million people are living in absolute poverty, while at least 350 million are undernourished. The analysis of the causal process which generates and perpetuates this massive problem, identifies several key factors. The increasing concentration of land ownership, the rapid commercialization of agriculture at the expense of the subsistence farming sector, the very low level of investment in human capital and lack of employment opportunities in the developing world's rural areas, are all reflections of inequitable agrarian systems and structures. This book provides ample evidence to demonstrate clearly, that equally responsible for the poverty trap are development strategies which favour rapid economic growth over equity, the weaker bargaining position of the "South" in trade and investment, and the influence of multinational operations on the rural economy of many developing countries.

The attack on rural poverty is seen as a multifaceted operation, spearheaded by national development strategies which give priority to the poor through the redistribution of assets (chiefly land) and incomes. But this thrust must be supported by measures to promote the active participation in the development process of the poor which includes rural women and the young, - and the expansion of employment opportunities in rural areas, sound pricing policies and guarantees of food security from global to village level.

FAO remains thoroughly committed to this mammoth task. Since the 1979 World Conference on Agrarian Reform and Rural Development (WCARRD), the Organization has directed its resources and activities towards bettering the social and economic conditions of small farmers and the rural poor. This publication is a part of FAO's efforts. I trust that scholars, rural development planners and practitioners in member countries will find this book useful for understanding the plight of the rural poor and for devising action directed to the elimination of rural poverty and hunger.

R. Moreno Rojas
Director,
Human Resources, Institutions and
Agrarian Reform Division
Food and Agriculture Organization
of the United Nations

Part One

THE INCIDENCE AND CHARACTERISTICS OF RURAL POVERTY

Chapter One

THE INCIDENCE OF RURAL POVERTY

It is easy to talk about rural poverty in the abstract as an evil which should be eliminated. It is not so simple to identify the poor or to measure the actual numbers of poor people in the world. Nor can we easily identify the characteristics of their poverty. To move from the abstract to the concrete, it is necessary to identify the poor and understand the extent of rural poverty in the world. The rural poor form an economically and socially heterogeneous group, made up of tenants, sharecroppers, small peasant land holders, landless labourers, artisan fishermen, and other vulnerable groups. Within each group there are the very poor or destitute, who require special attention in development programming. There is also an important difference between seasonal poverty due for instance to drought or floods mostly combined with illness, and persistent poverty which "traps" those affected. The causes and duration of deprivation may be different in each group, and may therefore require different remedies.

This Chapter explains briefly what rural poverty is and how it is measured. It then reviews the incidence of rural poverty, globally and in 60 individual countries, as estimated by the countries themselves or in collaboration with international organizations and research institutions. The experience of selected developing countries in defining and using various measurements of poverty is presented as Technical Appendix I. Finally, the chapter examines the rural poor according to their occupations to answer the question: who are the rural poor?

Estimating Poverty Incidence

This enquiry starts with the available data on the incidence of rural poverty in developing countries. While cross-country classification of statistics is useful, direct comparison between countries may often be misleading because of data limitations and differences in methodological concepts. They may also give the impression that countries with a low incidence of rural poverty are in some way examples to be followed in development strategies and policies. Since structural conditions, development objectives and time horizons often differ fundamentally between countries, these comparisons may be meaningless and misleading.

What is poverty? In this study, our focus is on absolute poverty, meaning absolute deprivation of certain basic necessities of life, the most obvious being food. This is different from relative poverty, which is concerned with the positions of different groups of individuals in terms of their income and consumption levels. While relative and absolute poverty are associated with each other, they are not equivalent. In a developing country there can be a good deal of absolute poverty, even with relatively equal income distribution.

Considerable debate has arisen over whether absolute poverty is actual deprivation of particular basic needs in physical terms or whether it should be measured generally in monetary terms, comparing income levels with some defined standard. An important distinction must be made between actual deprivation of physical needs and the level of purchasing power. The former, measured by direct surveys, applies to people whose actual consumption, mainly of food, falls below a stipulated minimum requirement. The latter, extrapolated from limited household income/expenditure surveys, would apply to those whose income is insufficient to meet those minimum needs, which differ between societies. Moreover, in the case of subsistence or below subsistence farmers (an important rural poverty group in nearly all developing countries), deprivation has more to do with agricultural production and low productivity than with money income received. If a large part of agricultural (or other) output is not sold in the market its value must in some way be measured in monetary terms for any financial measure to have significant meaning.

There are other problems. Consider a household with an income regarded as the minimum needed to meet all basic needs, but which, for some reason or other, spends its income so carelessly that members of the household suffer undernutrition. That household would not be poor, using income as a measure; but measured in terms of food consumption or against anthropometric standards for children, the household would be undernourished and, therefore, "poor". The same level of nutrition can be provided by different combinations of food items. For instance, a diet based on rice or wheat may cost more than an equivalent one of millet and sorghum. There are also those who survive on naturally-growing vegetation or on food aid. By the income method they would be very poor but not by the nutrition method.

Many countries use a poverty line to determine the number of households or individuals who are poor, i.e. those, in physical or income terms, who live below the established level. In estimating a poverty line, some allowance is made for spending on non-food items, such as clothing, housing and fuel, as well as

education and health. The latter group of items is often provided or subsidized by governments to varying degrees, creating further problems in the measurement of poverty incidence. For example, if Country A provides more public services than Country B, the poverty lines in the two countries would be different despite otherwise similar conditions and prices.

Nutrition can be considered as the most essential of basic needs - without adequate amounts of fuel, clothing and education people may continue to live, but without food they most certainly will not. Because of this, poverty lines have sometimes been defined in terms of food, and some scholars argue that poverty should be measured specifically in terms of undernutrition. However, the risk is that this would lead to an underestimation of the incidence of rural poverty because other basic needs are left out.

Evidence from India illustrates how the physical and income methods of assessing poverty produce different results. Setting a "minimum income", based on nutritional requirements and basic needs, at Rs.200 per capita per year, one investigator estimated that the number of poor in rural areas fell from 46 percent of total rural population in 1960-61 to 37 percent in 1967-68. Another survey, using a minimum calorie requirement translated into money value, came to a completely different conclusion: because of price rises, rural poverty increased from 38 percent in 1960 to 53 percent by 1968 (Bardhan, 1971). Finally, a survey which used a minimum nutritional level of 2250 calories per day as the poverty line found that the number living below it rose only slightly between 1960/61 and 1971/72, from 40 percent to 46 percent of total rural population.

Issues in estimating poverty incidence. The question remains: how to measure the incidence of absolute poverty within a population living below the poverty line? Do we simply add together all the persons identified as poor, or is it preferable to take households as primary units and add together the number of households? For the purpose of this study, individuals rather than households are preferred. Therefore, the overall measure of rural poverty is expressed as the percentage of the poor in each country's rural population. Account may also be taken of the average income of the poor and of how far their incomes fall below the poverty line. All these issues involve the question of aggregation, which is controversial but cannot be avoided, because the monitoring of progress towards alleviation or elimination of poverty requires measures for describing the severity of the rural poverty problem in each country. Depending on the level of aggregation, these measures may or may not be useful in the choice and execution of anti-poverty programmes and policies.

Another issue concerns the wisdom of fixing a "minimum income" for use in monetary measures for households which differ not only in size but also in composition by sex and age. For instance, for planning and programming purposes the official family size in the Philippines is six (two adults and four children) while Egypt uses a family size of five (two adults, three children). A large family living in poverty represents more poor individuals than a small family in poverty. Individual suffering does count. In fact it has been argued persuasively that persons should be aggregated in order to measure poverty properly (Sen, 1981).

However, aggregation fails to measure the average gap between the incomes of the poor and the poverty line. For policy-making purposes, there is already a concern in some countries' development plans for the lowest strata of the poor, who are usually called the "the very poor", "ultra-poor", "destitute", "most disadvantaged", and "critically poor". These are the categories which are often left out in overall development programmes and even in those directed towards the poor in general. In order to ensure that anti-poverty policies and programmes benefit them, classification of the poor into sub-sectors is therefore essential.

Empirical data on sub-sectors of the rural poor in developing countries illustrate this point. In Java, Indonesia, the rural poor were estimated at 57 percent of the rural population, with 34 percent classed as very poor (income below 75 percent of the poverty line) and 17 percent destitute (below 50 percent of the poverty line). In Egypt, 25 percent of rural people were judged poor in 1978 while 9 percent were very poor. The rural poor in Brazil were estimated in 1970 at 73 percent of population and the very poor (below the "destitution line") at 42 percent, while in Colombia the percentages were 54 and 23 respectively. The destitute poor in Brazil and Colombia are defined as "those rural households below the line corresponding to the cost of the minimum food basket, because households whose total income or consumption is less than that line would very likely suffer from acute undernutrition" (Altimir, 1980). In the case of Brazil, the national poverty line income of \$162 (at 1970 price level) was 1.8 times that of the very poor. This is an indication of the wide gap separating "the poor" from "the poorest" and illustrates how arbitrary and misleading is the use of a single poverty line for an entire country or an entire rural population.

The division of the poor into sub-sectors is important in framing anti-poverty programmes and policies. Once the poorest are identified within occupational categories and by sex, number

Table 1.1

Estimate of Rural Population in Absolute Poverty in 60 Countries
each with Total Population One Million and Over, 1975-1982

Country	Year	Total Population (millions)	Proportion of Rural Population to Total (%)	Percentage of Rural Population in Absolute Poverty (%)	Number of Rural Absolute Poor (millions)
AFRICA					
Benin	1979	3.4	70.7	65	1.6
Botswana	1982	1.0	75.0	55	0.4
Burundi	1978	4.0	97.7	85	1.6
Cameroon	1978	8.1	68.2	40	2.2
Chad	1978	4.3	83.6	56	2.0
Ethiopia	1976	29.7	87.7	65	16.7
Ghana	1978	11.0	64.0	55	3.9
Kenya	1978	15.4	86.7	50	6.5
Lesotho	1979	1.3	95.7	55	0.7
Madagascar	1977	8.0	83.0	50	3.3
Malawi	1977	5.5	74.5	85	3.5
Mali	1975	6.3	82.8	48	2.4
Mauritius	1981	1.0	48.0	12	0.1
Niger	1975	4.7	89.7	35	1.4
Nigeria	1978	83.0	79.0	38	25.0
Rwanda	1975	4.5	96.3	90	3.6
SIERRA					
Leone	1979	3.2	76.1	65	1.7
Tanzania	1978	17.6	98.2	60	9.0
Zaire	1975	24.7	65.2	80	12.9
Zambia	1975	5.0	30.0	52	0.8
ASIA					
Bangladesh	1975/78	81.0	89.9	74-81	56.5
Burma	1978	33.1	73.8	40	9.9
India	1979	674.7	78.0	50.7	265.6
Nepal	1977	13.6	95.4	61	7.7
Pakistan	1979	84.5	72.2	39	23.8
Indonesia	1980	151.0	79.7	44	52.0
Korea, Rep.	1978	37.0	47.8	11	1.9
Malaysia	1980-82	14.2	70.2	38	4.0
Papua New Guinea	1979	3.1	73.9	75	1.7
Philippines	1980-82	49.5	63.3	41	13.1
Sri Lanka	1981	15.0	72.0	26	2.8
Thailand	1978	44.4	85.9	34	13.1

...cont.

continued

Country	Year	Total Population (millions)	Proportion of Rural Population to Total (%)	Percentage of Rural Population in Absolute Poverty (%)	Number of Rural Absolute Poor (millions)
LATIN AMERICA					
Argentina	1975	25.5	32.0	19	1.6
Brazil	1980	122.5	32.0	73	28.5
Bolivia	1975	4.9	69.6	85	2.9
Colombia	1980	26.0	30.0	67	5.2
Costa Rica	1980	2.3	56.0	34	0.4
Dominican Rep.	1978	5.3	51.0	43	1.2
Ecuador	1980-82	8.3	54.7	65	2.9
El Salvador	1978	4.5	59.4	32	0.9
Guatemala	1977	6.6	62.2	25	1.0
Haiti	1977	5.4	76.6	78	3.2
Honduras	1978	3.4	65.9	55	1.2
Jamaica	1982	2.1	50.0	51	0.6
Mexico	1975	64.0	59.0	49	18.5
Nicaragua	1978	2.6	47.9	19	0.2
Panama	1978	1.9	47.4	30	0.3
Paraguay	1978	3.0	61.2	50	0.9
Peru	1977	16.5	43.0	68	4.8
Trinidad & Tobago	1977	1.0	78.7	39	0.3
Venezuela	1980	15.0	20.0	56	1.7
NEAR EAST					
Afghanistan	1977	14.4	86.0	63	8.2
Egypt	1976	37.1	56.1	25	5.3
Iran	1976	34.5	58.0	38	7.6
Jordan	1979	2.8	44.4	17	0.2
Morocco	1979	19.4	60.1	45	5.3
Somalia	1982	4.5	71.3	60	2.1
Sudan	1982	20.0	79.6	70	9.9
Tunisia	1977	5.9	50.7	15	0.4
Yemen, Dem.	1978	1.8	64.1	20	0.2
Grand Total		1903.0			670.7

Source: Calculated and compiled from: FAO, 1982a, 1983a,
1984a; FAO/ECLA, 1984; ILO/JASPA, 1981;
Khan and Lee, 1983;
various World Bank social indicators and
FAO Poverty studies.

and location, they can be given the highest priority in allocation of resources (the distribution of land, primary schools, food for work, primary health care, etc.). Without careful selection of the "target group" for anti-poverty programmes, assistance may simply not reach or benefit the most needy.

How Many are Poor?

To measure the numbers of rural poor, available data on the level of rural poverty in terms of the estimated percentage and number of absolute poor must be analysed. Data here are presented as given in various sources, without any questioning of their validity. Hence, the contents and conclusions of this quantitative analysis should be treated with some caution.

Incidence of poverty at global level During the 1960s several aggregate estimates of poverty, at global and regional levels, were made. At that time, researchers were not concerned with distinguishing between rural and urban poverty. On the basis of cross-section and cross-country aggregations, estimates of absolute poverty at global level during the early 1970s ranged from 370 million to 800 million (Fields, 1980). At about the same time, FAO published its Fourth World Food Survey which, using undernutrition as the essential criterion, found that during the period 1972-74, some 445 million people - or 25 percent of the total population in the developing world, excluding Asian centrally planned economies - were poor (that is, undernourished).

There are a number of points which must be made about these estimates. First, they do not provide a direct estimate of the level of rural poverty as such. Nevertheless, since the vast majority of the developing world's population lives in rural areas, it is almost self-evident that most of the poor were rural. Second, since food is not a person's only basic need, it is possible that many others who may not be undernourished would, according to other criteria, be counted as poor. Finally, and more importantly, the estimates conflict.

Incidence of rural poverty in 60 developing countries Table 1.1 presents numbers of rural poor, newly estimated on the basis of country surveys for the period 1975-82. It should be noted that the estimates are compiled from different sources and the bases for calculation of poverty incidence vary considerably. There may also be important differences in the definitions of "rural" and "urban" areas adopted for different surveys. The estimates cover 60 developing countries, each with a population

Table 1.2

Distribution of the Rural Poor by Level of Poverty
and Regions 1975-82

Region	Level of Poverty			Total No. of poor
	50% and more -- in millions --	30-49%	Less than 30%	
Africa	68.2 (15)	31.0 (4)	0.1 (1)	99.3 (20)
Asia	331.5 (4)	118.7 (6)	4.7 (2)	454.9 (12)
Latin America & Caribbean	51.9 (9)	21.6 (7)	3.8 (3)	77.3 (19)
Near East	20.2 (3)	12.9 (2)	6.1 (4)	39.2 (9)
Total	60	471.8 (31)	184.2 (18)	670.7 (60)

Source: Calculated from data in Table 1.1. Figures between parentheses are the number of countries in each region.

of one million or more, and a total population of about 1,903 million. Together, the population of these countries represent 87.5 percent of the developing world population (excluding the rich oil exporting countries of the Near East, for non-availability of data, and China). Out of these countries' total rural population of 1,321 million, 671 million or 50.8 percent were absolutely poor at different times over the period 1975-82. Sixty-eight percent of them were in Asia, 14.9 percent in Africa, 11.0 percent in Latin America and 5.9 percent in the Near East.

In Tables 1.2 and 1.3 we classify countries according to three broad levels of poverty incidence: high (50 percent and more), medium (30-49 percent), and low (less than 30 percent). Table 1.2 presents these relationships by distributing the total rural poor in the 60 countries. Three observations can be made from this distribution. The first is that Africa has the highest number of countries - 15 out of 20 - with high poverty incidence of 50 percent and more. Only Mauritius has a low level of poverty. Second, absolute rural poverty is largely concentrated in some of the most populous countries of Asia, namely Bangladesh, India, Pakistan and Indonesia. Together these four countries contain 398 million poor or about 60 percent of the

Table 1.3

The Level of Rural Poverty Related to Income Level in 60 Developing Countries with Total Population One Million and More

Poverty Level	Average GNP 1/ Per Capita Income		
	Less than 400	400-1000	More than 1000
50 percent and more	Afghanistan, Benin, Bangla- desh, Burundi, Chad, Ethiopia, Haiti, India, Kenya, Lesotho, Madagascar, Malawi, Nepal, Rwanda, Sierra Leone, Somalia, Sudan, Tanzania, Zaire	Botswana, Bolivia, Ghana, Hon- duras, Peru, Papua New Guinea, Zambia	Brazil, Colombia, Ecuador, Jamaica, Paraguay
N = 31	N = 19	N = 7	N = 5
30 - 49 percent	Burma, Cameroon, Indonesia, Mali, Niger, Pakistan	Dominican Republic, El Salvador, Morocco, Nigeria, Philippines, Thailand N = 6	Costa Rica, Iran, Mexico, Malaysia, Panama, Trini- dad and Tobago, Venezuela N = 7
N = 19	N = 6	N = 6	N = 7
Less than 30 percent	Sri Lanka	Egypt, Nica- ragua, Yemen P.D.R.	Argentina, Guate- mala, Jordan, Korea R., Mauri- tius, Tunisia N = 6
N = 10	N = 1	N = 3	
Total 60	26	16	18

Source: calculated from data in Table 1.1 and from World Bank statistics.

1/ Note: Gross National Product is used instead of the Gross Domestic Product because of the importance of migrant workers' remittances, which are included in the former. The year 1979 is chosen because most of the years of reference of the estimates made were between 1975 and 1981.

total rural poor in the 60 countries. Nevertheless, six of the 12 Asian countries examined here have medium or low poverty levels. The third observation from Table 1.3 is that in spite of high per capita income levels in Latin America, the number of countries with a high level of poverty is proportionately greater in that region than in Asia and the Near East. Out of 19 Latin American countries examined, nine have rural poverty levels of 50 percent and more, five of them have per capita income higher than \$1000 and several of them average incomes of more than \$2000.

This contrasts sharply with Egypt, Nicaragua, Sri Lanka, the Republic of Korea and Democratic Yemen which are low-income countries but nevertheless register low levels of rural poverty.

Such marked differences between high- and low-income countries suggest that rapid economic growth and high income levels alone do not eliminate rural poverty. Since agriculture remains in both groups the main source of rural income and employment, we must analyse the structural characteristics and the development priorities, strategies and policies in each country's rural economy to discover why poverty has been either perpetuated or alleviated.

(The incidence of rural poverty in China deserves attention. According to a recent study, the Chinese themselves have identified 221 counties which had an average distributed collective income per head of 50 yuans or less (the poverty line) in each of the three years 1977-79. These are designated as "chronically poor" counties with a total population of 87.9 million (about 11.2 percent of total population of 19 provinces in 1979). In 1984 the number of counties with per capita income of less than 40 yuans fell by 55.5 percent and those with between 40 and 50 yuans by over one third. Taking into account intra-family income transfers, the study concluded that as much as 3 percent of the total population, or 30 million people, have a living standard equivalent to less than 50 yuans per person. These are not only in rural areas (Griffin, 1984).)

Trends in the level of rural poverty 1960-82

It is difficult to judge changes in the poverty levels over time, for two reasons. First, studies of household-specific characteristics in rural areas are, with the exceptions of those carried out in India, Pakistan and Egypt, only recent. Second, there are differences in the periodic estimation of poverty levels and variations in the assumptions made about what constitutes the poverty line (see Technical Appendix I). Very often two researchers have drawn conflicting conclusions from the same evidence. Nevertheless, we attempt, using estimates made at different points of time in 14 countries (Table 1.4), to draw some inferences.

Table 1.4

Trends in the Incidence of Rural Poverty in Selected Countries 1960-82

<u>Country</u>	<u>Year</u>	<u>% Rural Poor</u>	<u>Number of Rural Poor (Millions)</u>	<u>Country</u>	<u>Year</u>	<u>% Rural Poor</u>	<u>Number of Rural Poor (Millions)</u>
Egypt	1959	22.5	3.6	Malaysia	1970	45	3.6
	1965	17	3.0		1980	38	3.8
	1974	28	5.8				
	1978	25	5.5				
Bangladesh	1973/74	78	53.2	Morocco	1960	49	4.9
	1976/77	81	56.6		1979	45	5.4
Brazil	1960	60	26.7	Nigeria	1973	33	20.7
	1970	73	30.8		1979	38	23.4
	1980	68-73	28.5				
Colombia	1972	54	54.0	Pakistan	1963/64	40.5	
	1980	67	67.0		1969/70	51.5	25.1
					1979/80	39.8	23.4
Honduras	1967/68	75	1.3	Paraguay	1975	50.6	0.9
	1979/80	68	1.6		1982	63.0	1.4
India	1964/65	45	173.4	Philippines	1965	44.0	7.9
	1968/69	54	244.4		1971	47.0	11.8
	1979	50.7	273.6		1980/82	41.0	13.4
Indonesia	1970	59	59.2	Thailand	1968/69	43.0	12.9
	1977	51	55.8		1975/76	35.0	12.5
	1982	44	52.1				

Source: Altimir, 1980; Bardan, 1971; FAO/ECLA, 1984; ILO/JASPA, 1981; Khan and Lee, 1983; various FAO studies on socio-economic indicators, and FAO and World Bank studies on rural poverty.

In gauging trends, it should be remembered that figures for rural poor they can conceal changes in absolute numbers. For example in India the reduction in the percentage between 1968/9 and 1979 from 54% to 50.7% was nevertheless accompanied by an increase of those in poverty from 244.4 to 273.6 million. A similar feature is seen in the Philippines (1971 to 1980/82), Malaysia (1970 to 1980) and Honduras (1967/68 to 1979/80), while in Thailand (1968/69 to 1975/76) a marked fall in the percentage reduced the number of rural poor by only 0.4 million.

Data which allow comparison of poverty incidence over longer periods are available for both Pakistan and Egypt. They reveal an increase in percentage and absolute numbers of rural poor during the 1960s, despite a fast rate of growth of per capita GNP. In Pakistan, the incidence of poverty rose from 40.5 percent to 51.5 percent between 1963 and 1970, but has since fallen both in proportion and in absolute numbers. In Egypt, the number of rural poor fell between 1959 and 1964, thanks mainly to major land reforms and other measures to improve income distribution, but increased over the following decade; in the late 1970s, poverty again declined. In both cases, the most recent decline is due to a substantial flow of remittances from labourers who had emigrated to oil-rich Near East countries.

Brazil, Latin America's most populous country, experienced a considerable rise in rural poverty in the 1960s and '70s, despite average income of more than \$2000 and sustained growth of GNP per capita (at the rate of 3.7 percent a year during 1950-75 and 6.8 during 1970-75). This high incidence of rural poverty is matched by a high and increasing concentration of land ownership and the rapid commercialization of agriculture. The situation would probably have been worse but for rapid urbanization, which syphoned off the rural population and, in both Brazil and Colombia, has also added to levels of poverty in the cities.

However tentative these comparisons may be, there is no denying that the incidence of rural poverty is intolerably high and will continue to be so for the foreseeable future. Even on optimistic assumptions, these estimates indicate that at least 700 million rural people are now living in absolute poverty.

Who are the rural poor?

These hundreds of millions of rural poor do not constitute an undifferentiated mass. Their income and social status are determined by their occupations, which need to be identified. Though the rural poor are often classified as landless, nomads and pastoralists, artisan fishermen and widowed female head of households, these are only broad terms. In fact, the poor usually engage in a number of activities. For instance, a landless agricultural worker may also be a sharecropper, a tenant may be an artisanal fishermen. Their survival depends on this diversity.

These groups within the broad category of the rural poor share common characteristics. These include a high degree of vulnerability to climatic changes a seasonal pattern of employment and thus low economic participation; exclusion from many agrarian reform programmes, which often favour tenants already operating land; social exploitation through unwritten

contracts which lead to economic deprivation and social degradation; insecurity in access to public services often due to lack of social discipline among local bureaucracies; and powerlessness in the labour market.

The landless The landless are defined differently by different researchers and planners: either as hired agricultural workers only, or as these workers plus marginal or near-landless farmers (i.e. those operating a parcel of land too small to sustain a household). Variations in the definition of the landless adopted affect the estimation of their numbers.

Strictly speaking, landless farmers are hired agricultural workers who do not rent, own or sharecrop any area of land. They possess only their physical labour power and skills acquired through experience and tradition. Higher up the ladder are those landless who own one or two animals (such as a buffalo, cow, donkey or sheep) and those who supplement their earnings by working occasionally in non-farm activities, including road construction and fishing. A further step away from absolute landlessness are workers who own or rent very small areas of land but occasionally provide wage-labour during peak agricultural seasons. It is difficult to estimate the number of these "casual labourers" from agriculture census data because they are sometimes included in counting of the first two categories.

The question arises: at which cut-off point does a person qualify for the description "landless"? Several criteria are possible, including the balance of income between that derived from land and that from the sale of labour power, or a fixed land size limit. But the balance of income may vary between seasons and years, and a fixed land size does not take account of variations in soil fertility, cropping patterns and access to modern inputs. It is feasible to adopt country-specific criteria which allow for some land provided it does not produce yearly income exceeding one-fifth of poverty level income or one-tenth of per capita GNP. These cut-off points are arbitrary but do agree with the commonsense view that the landless are not primarily dependent on land ownership or operation for their survival.

The following estimates of the extent of landlessness among the poor are based on information from household surveys on income, expenditure and food consumption, from farm management and labour surveys, and from population and agricultural census results. It should be remembered that these estimates represent a static situation at one time under particular production, institutional and weather conditions. In agriculture, of course, labour supply and demand changes. Egypt, for instance, was once

singled out as a country burdened with a large surplus of labour in agriculture, estimated in 1947 at 1.7 million people (El Ghonemy, 1954). Twenty-five years later, this situation was completely reversed and the labour market in Egypt today is characterized by shortages. The main cause of this was rapid urbanization and massive emigration to neighbouring oil-rich countries. Thanks to remittances, an agricultural household with a member working in the Gulf countries may be better off than a small land-owner in the low-productivity cropped area. Thus, while the employed labour force in agriculture declined by 2 per cent a year during 1971-79, we cannot say that unemployment and poverty have increased among Egypt's hired agricultural workers. In fact, their real wages have increased.

The study, "Agriculture: toward 2000" (FAO 1979), estimated the total number of landless in rural areas of the developing world. It found that slightly more than 30 million agricultural households were without land, while another 138 million were marginal or near-landless. By region, 64.5 per cent of these landless or near-landless households were in Asia, 19.3 per cent in Africa, 10.2 per cent in Latin America and 6 per cent in the Near East. But taking landless households alone, we find that 71 per cent were Asian and 12.9 per cent Latin American. In terms of total numbers, landlessness is largely an Asian problem and concentrated in four countries: Bangladesh, India, Indonesia and the Philippines.

Surveys of the occupational distribution of the rural poor in Iran, Kenya and Mexico (FAO 1982a) offer a guide to the extent of landlessness in those countries. In Iran in 1976 it was found that 51 per cent were marginal small-farmers or self-employed and 21 per cent were hired agricultural workers; in Mexico (1977) the comparable figures were 33 and 18 per cent respectively. In Kenya (1974), only one rural person in ten was a hired landless worker in agriculture or a squatter on large farms. In Malawi and the Ivory Coast landless and hired agricultural workers were emerging as large commercial farms, including multinational ventures, expanded. Their numbers are not known, but real wages have declined from an index in Malawi of 100 in 1968 to 75 in 1977, and in the Ivory Coast of 100 in 1960 to 67 in 1976 (Ghai and Radwan, 1983).

Landlessness in Indonesia has been the subject of several studies. Recent agro-economic surveys conducted during 1979-82 in Java concluded that out of the island's 14 million households 5.1 million -- or 36.5 per cent -- were landless in 1982. In Bangladesh, Land Occupancy Surveys carried out in 1977-78 found that about 3.4 million households -- between 29 and 32.8 per cent -- had no agricultural land at all. In addition, there were another 2.6 million households each owning less than half an acre of land.

Pakistan, a country whose land tenure system has been well researched, provides an interesting case. It has been estimated that since agrarian reforms were carried out in 1959 the number of hired agricultural workers has almost doubled, rising from 0.7 million to 1.3 million in 1982. This compares with an increase in the agricultural labour force of 12 per cent during the period 1970-80. Provided the basis of the two estimates of landlessness was the same, this is strong evidence of inadequate access to land and also a sign that the landless poor have remained outside the purview of Pakistan's agrarian reforms. From the recently published 1980 Agricultural Census of Pakistan, the number of landless in the agricultural workforce has been calculated as 2.68 million, made up of permanently hired labourers and non-land households with one or two animals. If to this group is added those paid workers who own less than one hectare of land (1.63 million), then the total would be more than 4.3 million (excluding casual workers), or 38 per cent of the total labour force in agriculture. Even this figure is an underestimate, because female workers are not fully counted.

A study prepared by FAO in 1985 estimated that about 600,000 households in Thailand were totally landless, or between 7 and 9 per cent of all agricultural households. In India, landless and marginal holders of up to 0.5 acres constituted 80.1 per cent of the total rural poor in 1975 (FAO 1982a). For the year 1982, the number of rural landless workers (i.e. those who are not tenants, sharecroppers or farmers operating their own land) was about 58 million (FAO 1984b). Other available estimates indicate that in Peru (Caballero, 1977) the landless and "near-landless" were 55 per cent of the total labour force in agriculture. A study by US AID in Costa Rica calculated the percentage of the landless rural population at 55 and found it constituted the majority of the poor (Lassen, 1980).

Available data from Indonesia, India, Sri Lanka, Kenya, Bolivia and Bangladesh show that the landless are fully employed for between 110 and 184 days of the year. Many of them depend on contractors for their food and for personal loans. Migratory workers lack the protection of minimum safety rules and medical services, and no education is provided for their children. This happens despite the existence of labour legislation.

For rural development programming purposes, two extremely deprived groups must be included in the category of the landless. One consists of female-headed households which suffer because traditional laws and customs on inheritance often dispossess widows of part or the whole of the family land. Another are classes of people who suffer social discrimination, such as the scheduled castes and tribes of India.

Pastoralists and Nomads Estimates of the number of pastoralists and nomads in developing countries, like those of the number of land-less in agriculture, differ according to definitions used. First, a distinction may be made between the terms "pastoralism" and "nomadism". Though both pastoralists and nomads depend for their livelihoods mainly on livestock maintenance and natural forage, nomads require mobility because of seasonal change or the irregular location of pastures. To simplify the discussion, both are treated here as one group.

The world's pastoralists and nomads live mainly in Africa and the Near East. There are estimates of 14 to 15 million in Africa south of the Sahara, 11 million in the Near East, and about 3 to 5 million in China, India and Mongolia. Their total population would be about 26 to 30 million. They represent a high proportion of the rural populations of countries such as Somalia (65 per cent), Mauritania (80 per cent), Mongolia (60 per cent) and the Sudan (20 per cent). They are vulnerable to adverse environmental conditions which can cause a high death rate among stock, thus reducing their asset base. This vulnerability has been tragically evidenced during recent droughts in Ethiopia and Sudan. In both cases, many pastoralists and nomads who had lost or sold off their animals later died from famine.

Because of their mobility, pastoralists and nomads have not received education, primary health care and social amenities. Their population has increased, although as a proportion of total population, it is declining. Of course, not all pastoralists or nomads are poor. In a study of Somalian nomads, it was found that they were no worse off than small farmers in terms of income, but had less access to education and agricultural services.

Small-scale fishermen Very little is known about these forgotten members of the poor. There are over 10 million artisan fishermen (FAO, 1984c) living in the tropics and their numbers are increasing. According to a study carried out in the Hobyo fishing village in Somalia (FAO, 1983b), nearly all the households were found to be living below the poverty line established for the study. Fishing communities in Ghana, Mauritania and Sierra Leone, who follow the movements of fish schools in primitive canoes, are also unable to attain a minimum level of subsistence. In Mauritania, they are considered a lower social caste. Undoubtedly the suffering endured by these poor fishing communities will increase as Third World fishing grounds are increasingly exploited by modern fishing fleets.

Finally, we should put digits aside. Statistics can only suggest the enormity of the problems of survival facing the world's rural poor. In order to fully understand their plight, and the urgency of action to assist them, we seek to identify in the next chapter the characteristics of rural poverty.

Chapter Two

THE CHARACTERISTICS OF RURAL POVERTY

Ill-health, lack of education, and undernutrition are basic characteristics common to the rural poor throughout the developing world. Yet even among the poor, there are sometimes marked differences in nutrition, health and educational levels. For this reason, we examine here not only the obvious characteristics of poverty, but also famine and the often unnoticed disparities between the poor, based on age, sex and land tenure status. Since land is the basis of food production, incomes and employment, and helps determine access to education and health services, landlessness and land tenure are related to these characteristics.

Nutritional levels and food availability

Because food is a biological necessity for human survival, food intake -- or the lack of it -- is a major yardstick in the assessment of poverty. However, undernutrition is more than a simple problem of food supply. The poor are not all undernourished, but the undernourished are almost always poor. In a household with adequate food supply, some members may go hungry. A person's nutritional status is the result of a complex web of food and non-food factors. Therefore, attempts to measure nutritional status in terms of "averages" of food consumption or "minimum requirements" can lead to wide variations in estimates of the world's poor rural population. Such attempts may also unwittingly conceal the full extent of nutritional deprivation and its serious effects on human health, physical growth, productive capacity and employability.

The link between nutrition and poverty. Three points may highlight the complexity of the poverty-nutrition relationship. First, the number of rural poor estimated on the basis of a "minimum per capita calorie requirement" will vary according to the minimum adopted. Second, there is the erroneous assumption, based on household survey results, that a household is living in absolute or ultra poverty if it spends around 70 to 80 per cent of its income on food. This assumption ignores diet quality -- a family living mainly on cheap coarse grains might spend less on food. Moreover, since this method of measuring poverty is based on a pooled estimate of an entire household's consumption, it may well overlook undernutrition among children. It may also ignore

heavy spending by adults on cigarettes, alcohol and drugs such as coca in Peru and Bolivia and qat in Yemen Arab Republic. Third, nutritional status is associated not only with income and food supply, but with a large number of social and environmental factors, such as the degree of access to health care, housing, safe drinking water supply, sanitation and fuel.

Table 2.1

Frequency distribution of developing countries according to per capita calorie supply levels

Per capita daily calorie supply	Number of countries 1/ 1969-71	1979-81
1900 or less	2	6
1901-2300	62	37
2301-2700	37	36
2701-3300	10	30
More than 3300	1	3
	112	112

1/ 112 developing countries for which food balance sheets have been published.

Source: FAO Statistics Division - Rome, 1984.

The realities of nutritional status Many attempts have been made to measure nutritional status, and particularly that of rural populations, in the developing world. FAO has tried to measure the extent of undernutrition in the developing world through its periodic World Food Surveys. The approach, essentially, is to estimate the distribution of calorie intakes among households within a population; the proportion of households with intakes below a certain minimum, multiplied by total population, gives the estimated absolute numbers of undernourished. In this procedure, the minimum cut-off point is set on the basis of energy requirement estimates.

The Fifth World Food Survey, published in 1985, is the Organization's most systematic attempt to assess the extent of undernutrition in developing countries. Its estimates of the incidence of undernutrition for selected countries, given in Table 2.2, can only suggest the enormity of undernutrition in the developing world, particularly among its rural people. After refining methodology used for the Fourth Survey in 1977, FAO fixed two per capita requirement levels, 1.4 and 1.2 BMR, 1/ the lower value taking into account variations between individuals. Using the lower cut-off point, we see that 237 million people in the 33 low-income countries and 335 million people in the total of 98 developing countries were surviving at the absolute minimum of requirement. Using the upper limit of requirement, we find that almost 500 million people were suffering from undernutrition.

Table 2.2

Undernourished population of developing market economies,
1979-81,
according to two alternative estimates

Group of countries	At the lower cut-off limit of 1.2 BMR		At the upper cut-off limit of 1.4 BMR				
	Incidence per cent	Number of persons (millions)	Incidence per cent	Number of persons (millions)	3	4	3
Low income countries	20	237	31	31	3	4	3
Low income food-deficit countries	18	278	31	406			
Least-developed countries	28	77	34	1 0 2			
All developing market economies	15	335	28	4 9 4			

Source: From FAO, 1985a, Table 3.1

1/ BMR, or basic metabolic rate, is the energy expended for the function of human organs when a person is in a state of absolute rest.

It is clear from the data on the prevalence of rural poverty presented in Chapter One that most of the undernourished live in rural areas. Using minimum income level as a poverty line, the rural poor in 60 countries (representing 87.5 per cent of the developing world population) numbered 670 million people. There is a close association between the two estimates of absolute poverty and undernutrition: food expenditure represents about 70 per cent of the income of the rural poor, and rural people make up 70 to 80 per cent of total population in low income countries.

Some insight into the extent of rural undernutrition is possible using evidence produced by anthropometric surveys, i.e. studies of the actual weights and heights of individual children in different age categories below five years, which are then compared to standard growth patterns. Such surveys are sensitive indicators of acute malnutrition among children and provide an outline of the nutritional status of households. Anthropometric surveys carried out during the period 1975-83 have shown that a high number of children, under 5 years in developing countries were below average weight for age -- 54 per cent in Asia, 26 per cent in Africa and 18 per cent in Latin America excluding Argentina and Uruguay. Measured in this way, undernutrition appears to be much higher among rural children than in urban areas (WHO 1984).

The implications are disturbing, since studies in Bangladesh found that among undernourished children of between 1 and 2 years with weight-for-age between 75 per cent and 90 per cent below normal, the mortality rate was 36.6 per 1000; among those between 60 and 70 per cent below average, the rate was 42.1 per 1000, while the severely undernourished -- less than 60 per cent of normal weight-for-age -- suffered a higher mortality rate of 112.4 (Chen, Hug and D'Souza, 1981). Another study in India estimated that of the 23 million Indian children born in 1983, between 15 and 20 per cent would die before they reached the age of 20. These victims are largely the three to four million children born in poor households (Lipton, 1983).

Sex disparity among the undernourished Another significant finding of recent surveys has been that women and girls are more likely than males to suffer from undernutrition. The clearest indicators of this undernutrition among adult females are anaemia and low weights of new-born infants. WHO data shows that nutritional anaemia, which indicates parasitic infections as well as dietary deficiencies, affects 40 per cent of African and 58 per cent of Asian women (Royston, 1982).

The above-mentioned study in rural Bangladesh turned up stronger evidence of a sex disparity among the undernourished. Researchers found that males food intake averaged 1927 calories a day compared with 1599 for women. Among children under five years, male calorie consumption exceeded that of females by 16 per cent. The sex disparity was even sharper among people aged 45 years and over: males consumed 61 per cent more calories. It was also found that, in a sample of 882 children, 14.4 per cent of females were "severely malnourished", compared to only 5.1 per cent of males (Chen, Hug and D'Souza, 1981).

Evidence from field studies in Bangladesh, India and the Philippines suggests that poor rural families attach less economic value to female children. The question is, would this disparity continue if more food were available to the household? More research is needed to answer this question. However, limited data from Kenya and New Guinea indicate that food distribution patterns do not change even when the family, as a whole, meets its energy needs.

Land tenure and undernutrition Since land is the productive asset which mainly determines income distribution and thus access to food in rural areas, it should follow that nutrition among rural people is closely related to land tenure status and to the size of land holdings. This is confirmed in Table 2.3 and by household income/expenditure surveys and nutrition surveys in India, Peru, Bangladesh, the Philippines, Somalia, Haiti, Kenya and Tunisia which show that undernutrition is largely concentrated among the landless, sharecroppers, very small farm holders and small-scale fishermen.

Table 2.3

Per capita food consumption and nutrient intake
per day in relation to size of landholding

Landholding acres	Food consumption grams	Nutrient intake	
		Calories (k. cal)	Protein (gms)
Landless	694	1,925	53.9
.01 - .49	683	1,924	52.6
.50 - .99	745	2,035	57.7
1.00 - 2.99	785	2,193	62.5
3.00 +	843	2,375	67.6

Source: FAO, 1982a, p. 85.

Seasonality in food production is another factor in under-nutrition, especially among landless and peasant farmers. Evidence supports the hypothesis that hunger increases in many rural areas during the months leading up to the new harvest when food reserves are low, food prices high and energy needs for farm work increasing. During this period, adults lose up to a tenth of their body weight, child mortality rates reach a peak and sickness is prevalent. Particularly vulnerable are poor and landless families headed by women or families with large numbers of dependent children.

Food insecurity and famine In certain circumstances, the rural poor's precarious access to food rapidly deteriorates, with the disastrous consequence of famine. The poor are especially vulnerable to food insecurity and the risk of famine because, having so few resources, they are virtually defenceless against a series of misfortunes or unprecedented disaster. In addition, famine -- as an extreme form of food insecurity -- can generate permanent poverty.

Investigation of these relationships requires first some elaboration of the concepts used. Food insecurity implies regular deficiencies or temporary fluctuations in the supply of basic foods needed to maintain adequate consumption levels. The major reason is usually a fall in production due to natural or man-made disasters. At the rural household level, which is our primary concern, it results from crop failures and livestock deaths, from price rises of grain against livestock products, cash crops and wages and services, and from a decline in employment opportunities. Famine occurs when acute food shortages, due to production and/or market failures, lead to widespread starvation. This is usually accompanied by massive migration to roadsides, towns or relief centres. Many famine victims, weakened by malnutrition, die of disease which spreads quickly in the overcrowded conditions of relief camps.

The evidence is unequivocal that the victims of most 20th century famines have been the poor. Sen (1981) has shown, for example, that even in conditions of adequate food supplies, starvation can occur among those groups who lack the resources to buy food. His analysis of four famines -- in Bengal in 1943, Ethiopia in 1972-74, the Sahel in 1968-73 and Bangladesh in 1974 -- demonstrated that only in the Sahel did a decline in actual food availability contribute to the disaster. In the other three, food availability was no worse or even better than in non-famine years. Sen found that the victims had one factor in common: the ratio of the price of foodgrains to their wage rates, or to the

other goods they were producing or services they were offering, moved sharply against them, due to inflationary pressure on foodgrains.

Several factors were at work. First, food price hikes resulting from a shortfall in supply forced a larger number of the poor, including smallholders and tenants, to seek supplementary employment. This expanded the workforce at a time when demand for agricultural labour was low, with the result that wages declined or were stagnant. A second factor was that as people sold off their livestock, tools, jewellery and even land in order to pay for food, the market value of the assets tended to fall. Finally, in famine situations, price ratios of other goods and services tended to fall sharply against grain, while the demand for services also slumped. Thus, the victims were those with few resources who were in low-income wage employment. In Bengal they were "fishermen, transport workers, paddy huskers, agricultural labourers, those in 'other productive occupations', craftsmen and non-agricultural labourers, in that order". In Ethiopia, the occupational categories of the destitute included pastoralists, evicted farm servants and dependants of farmers, rural labourers, tenant cultivators, small land-owning cultivators, daily male labourers in urban areas, women in service occupations, weavers and other craftsmen, and occupational beggars.

Another researcher found that in 1973-74 food consumption in Bangladesh fell below minimum requirements for 36 per cent of rural households, of which 24 per cent could meet less than half of their requirements. Since they were generally subject to exploitative production relations, tenants, labourers and service workers were particularly vulnerable to famine conditions (Alamgir, 1980).

Famine can generate or increase permanent poverty because its victims lose assets and future income through livestock deaths, the destruction of trees and physical infrastructure, the distress sale of assets, and debt. The result is usually an increase in numbers living below the poverty line (unless, of course, there are massive numbers of deaths among the weakest). In 1973-74 the proportion of people in "extreme poverty" in Bangladesh rose from 25 per cent to 42 per cent, while 5 per cent of rural households suffered a deterioration in their socio-economic status and landlessness increased by about three per cent. The position of the rural elite was strengthened after the famine (Sen 1981, Alamgir 1980).

The relation between poverty and nutrition is clear. Undernutrition is widespread among rural people in the developing countries and is a strong indicator of their level of poverty.

Even among these people there are marked variations in calorie intake according to age group and sex, and between households and within households. In general, undernutrition is most likely to be found among landless workers, small-scale fishing communities, rural women and female children. Another conclusion is that the nutritional state of an individual is governed by the overall level of socio-economic development. When man-made or natural disasters suddenly provoke acute food shortages, the poor are the first to suffer and the first to die of starvation.

Health characteristics of poverty

Ill-health is another characteristic of poverty in the rural areas of developing countries. It robs individuals of part of their productive energy, reduces the incomes of families and prevents children from receiving the full benefit of education.

Association between health and nutrition among the poor
Many factors are associated with an individual's state of health (for example, his or her level of education or income), but the most closely related is nutrition. Apart from providing materials for building the human body, nutrition also determines an individual's level of defence against diseases. Undernourished people are therefore more likely to fall ill or die from disease. There is no more tragic evidence of this than the high rate of death from diseases such as tuberculosis, pneumonia, meningitis, hepatitis and diarrhoea among the victims of recent famines in Ethiopia, Chad and the Sudan. Undernutrition in children is also associated with a high rate of mortality from common childhood diseases. A study of child mortality in Latin America has shown that malnutrition is either associated with, or the principal cause of, six out of every ten deaths (Puffer and Serrano, 1973).

Income level and health A comparison of income level and health indicators in developing countries reveals that among the industrialized OECD countries, the infant mortality rate for those under one year currently averages around 10 for every 1000 live births, while the child mortality rate (ages 1-4) is close to zero. The figures in the USSR and Eastern European socialist countries are 21 and one, respectively. In 1982, the mortality rate among new-born infants in the world's 102 developing countries was 104.6 per 1000. The death toll was highest in the 37 least-developed countries, with a total population of 300 million and GNP per capita income averaging \$280 (weighted) a year. There the infant mortality rate was an appalling 141 per 1000, with life expectancy at birth of only 46 years. Among the 60 middle-income countries (weighted average GNP per capita income of \$1520), the infant mortality rate ranged from 64 to 90 per 1000 and weighted average life expectancy was 58 years for men and 62 years for women. Further up the income ladder, in the

five rich oil exporting countries (per capita income of \$14,820), the weighted average infant death rate was 96 and average life expectancy was 56 years for males and 60 years for females (UNCTAD, 1984).

There has been a reduction in mortality rates throughout the developing world over the past three decades. In 1950, for instance, life expectancy in the low-income developing countries was only 35 years. Even so, more than three decades later intolerably high infant mortality rates of more than 130 per 1000 and child mortality rates exceeding 25 per 1000 are still found in 15 countries: Afghanistan, Angola, Burkina Faso, Bhutan, Chad, Guinea, Mali, Malawi, Mauritania, Niger, Senegal, Sierra Leone, Somalia, Yemen Arab Republic and Yemen Peoples Democratic Republic. Another 27 countries have infant death rates exceeding 100 and child death rates of 20 and over. Most of these countries have a high incidence of rural poverty.

At the other extreme, child mortality rates in 25 developing countries have been cut to less than five per 1000, but in only six -- Costa Rica, Cuba, Chile, Jamaica, Malaysia and Trinidad -- has the infant mortality rate fallen to less than 30. Examination of health indicators in a cross-section of developing countries (Table 2.4) shows that there is no consistency in the relationship between income level, life expectancy at birth, mortality rates, the ratio of doctors to population and the percentage of rural population with access to safe drinking water. However, there are clearer links between some indicators. For example, changes over the period 1960-82 in health conditions by regions and by level of poverty indicate that, on average, death rates are significantly and positively linked with levels of poverty. Although rates of infant and child mortality declined everywhere, the rate of decline in the poorest countries is only half of that found in low-poverty countries such as Argentina, Egypt, Jordan, Republic of Korea, Nicaragua and Sri Lanka.

The decline in the infant mortality rate during the period 1979-82 was slower than during the two preceding decades. The most likely explanation for this development is the impact of the world economic recession since 1979. Disturbingly, this trend was most evident in countries with large rural populations. In Bangladesh, Brazil, Ethiopia, India, Iran, Nigeria, Pakistan and Zaire, the rate of decline in infant deaths is less than 2.5 per cent a year, much lower than the rates achieved in Colombia, Egypt, Kenya, Republic of Korea, Indonesia, Malaysia, Mexico, Peru and the Philippines (FAO 1984d).

The situation in Africa deserves close attention. Although income levels differ widely between countries (for instance, Chad \$80 and Gabon \$4000), African countries share many

Table 2.4

Health Indicators Related to Income and Poverty Level in Selected Countries

Low and middle income countries with pop. over 30 million by income level in descending order	Per Capita GNP in US\$	Total Population in millions	Rural Population below poverty as % of total	% of Rural population below poverty	Infant Mortality at birth (male) per 1000	Child(1-4) death rate per 1000	Rural population with access to safe drinking water - 1980
1982	1982	1982	1982	1982	1960	1982	1982
Bangladesh	140	93	88	74-81	45	159	133
Ethiopia	140	33	85	65	35	172	122
Burma	190	35	72	40	42	158	96
Zaire	190	31	62	80	38	150	106
India	260	717	76	50-7	43	165	94
China	310	1 009	79	-	41	165	67
Pakistan	380	88	71	39	44	162	121
Middle Income							
Indonesia	580	153	78	44	40	150	102
Egypt	590	44	55	25	46	128	104
Philippines	820	51	62	41	51	106	51
Nigeria	860	91	79	38	37	190	109
Turkey	1 370	47	56	-	49	184	83
Korea, Rep. of	1 910	39	40	11	52	78	32
Brazil	2 240	127	31	73	53	118	73
Mexico	2 270	74	32	49	55	91	53
Iran	-	41	48	38	50	60	163
High Income Oil Exporters							
Oman	6 090	1.1	80	38	51	193	123
Libya	8 501	3.2	44	46	56	158	95
Saudi Arabia	16 000	10.0	33	42	54	185	108

Source: World Bank, 1984a; UNICEF, 1984a

Table 2.5

Infant Mortality in Urban and Rural Areas of Selected Countries

Country and Year	Infant Mortality per thousand live births			Country and Year	Infant Mortality per thousand live births	
	Urban	Rural			Urban	Rural
Bangladesh 1980	80.4	103.5		Thailand 1976	25.2	74
Bolivia 1979/80	167	210		Philippines	-	-
Colombia 1983	50	80		Panama 1976	60	68
Costa Rica 1973	61	105		Somalia 1981	147	181
Egypt 1979	86	70		Syria 1976-79	43	58
Ecuador 1979	66	69		Sri Lanka 1979	44.7	74.3 (estates)
Jordan 1976	72	101		Zambia 1978	17.7	73.6
Kenya 1979	70.5	175.5		Yemen, A.R. 1981	163	197
India (all) 1978	70	136				

Source: Various FAO socio-economic indicator and poverty studies.

characteristics of poverty. Mortality rates are much higher than in other developing regions. Fifteen of the 20 developing countries with infant mortality rates of 150 and over are African; in 1982, only six African countries had child death rates below 20 and only seven had average life expectancy of more than 50 years. It is interesting to note that Nigeria, a major oil exporter with a gross national product per capita among the highest in Africa (\$860 a year), is far worse off than many middle- and low-income countries in terms of health. The telling indicators are in Table 2.4. Most of these data are national figures. In fact, the health status of the rural population is much worse. The Nigerian Government's Health and Nutrition Survey of 1983-84 estimates that 183 out of every thousand rural children die before the age of five. This is more than double the rate of urban areas. This rural-urban gap is also evident in disease statistics: 20 per cent of rural children had diarrhoea, compared to 12.6 per cent of children in the cities. Another study pointed up the fact that while the national average population per doctor was 12,550, one state had only one doctor for every 84,000 people. In some rural areas, the nearest hospital was 95 kms away and Government-installed wells were sometimes 14.5 kms distant from their users (Idachaba, 1981).

The lesson from this is that to gauge fully the plight of the rural poor in developing countries -- and to bring home to policymakers the alarming disparities between rural and urban populations -- health data presented as "national averages" must be broken down into rural and urban sectors. Regrettably, there is a shortage of such statistics, but WHO is now helping developing countries to measure the urban-rural health gap through its Primary Health Care Programme and FAO through its Programme of Socio-economic Indicators for the monitoring and evaluation of rural development. The 1978 World Fertility Survey also made a contribution to this disaggregation. Table 2.5 presents some statistics, drawn from 18 developing countries, which indicate often enormous differences in infant mortality rates between urban and rural areas.

Land tenure status of household heads, which is closely linked to income, is closely associated with health conditions in rural areas. Statistics from Latin America on infant mortality reveal significant correlations with land tenure status -- the rate of infant deaths among large landowners is as little as one third that found among hired agricultural workers. In Companiganj, Bangladesh, a similar pattern was found. Infant deaths among the landless were estimated at 155 per 1000, with a child death rate of 25. Among households with three acres of land, however, death rates dropped sharply to 85 (infants) and 18 (children).

Educational status of the poor

In exploring the dynamic interaction between poverty and educational status, and the reasons for the exclusion of the poor farmers, nomads and small-scale fishermen from training, we face a methodological problem: how to measure educational status. It is possible to use education "inputs" (public spending on education, school enrolments etc), but the very high rate of drop-outs among poor rural children reduces the validity of this method. Educational status is therefore ultimately represented by the "outputs" or literacy or educational attainment, which in turn affect agricultural productivity and rural welfare.

Most available statistics on literacy rates do not differentiate between rural and urban areas. A hint of what these aggregate figures conceal may be gauged from Table 2.6, presenting urban-rural disaggregated figures, assembled from various sources, for 21 countries.

There is an obvious relation between a country's level of poverty and its illiteracy rate. Middle-income countries like Sri Lanka and Uruguay have less illiteracy than Afghanistan and Bangladesh. There are exceptions, however: low-poverty countries with large rural populations (such as Egypt and Pakistan) still have very high illiteracy rates. Regardless of differences in national income, levels of illiteracy in all countries are much higher in their rural areas. The urban-rural gap is widest in the middle-income countries, particularly those of Latin America, where rural illiteracy is two or even three times greater than in the cities. In the lowest income countries, illiteracy is almost total (80 to 95 per cent). Also, female illiteracy is consistently and significantly higher in rural areas than in urban areas, the disparity being especially wide, again, in Latin American countries. While comparisons over time show a gradual improvement in literacy, the pace of improvement is slower in rural areas and among women.

These high illiteracy rates are reflected in key education indicators. One of these is public spending on education. In the OECD countries, which spent an average of \$111 per capita on education in 1980, illiteracy has almost disappeared. In developing countries, expenditure on education has increased noticeably in real terms, and almost doubled between 1960 and 1979 as a percentage of GNP. However, compared to the rich industrial market economies, allocations remain low: in 1980 middle-income countries spent from \$27 to \$42 per capita and low-income countries could find only \$2 to \$3 (with the exception

Table 2.6

Illiteracy by rural/urban areas, income level and poverty level

	Rural N.	F. N.	Urban N.	F. N.	Total Rural	Urban	Ratio Rural/Urban	Public Exp. Per capita \$
<i>Low income countries</i>								
Afghanistan (1980)	83.8	98.4	63.8	84.3	90.5	73.2	1.6	-
Bangladesh (1974)	70.9	96.9	45.5	78.5	83.5	60.9	1.4	(1972) 1
Burkina Faso (1975)	65.3	88.5	42.1	66.8	76.5	51.9	1.5	(1972) 3
China (1982)	88.3	98.0	55.2	81.9	93.3	68.5	1.4	(1980) 10
Pakistan (1972)	23.1	53.2	9.5	26.4	37.8	17.6	2.1	-
Pakistan (1981)	78.0	95.8	59.3	49.9	86.3	71.1	1.2	-
Pakistan (1981)	73.4	92.7	43.1	-	82.6	53.1	1.6	(1980) 1
Sri Lanka (1981)	10.7	21.4	4.4	9.2	16.0	6.7	2.4	(1980) 13
<i>Middle income countries</i>								
El Salvador (1971)	55.1	63.1	15.9	26.7	59.0	21.8	2.7	(1972) 11
Egypt (1976)	55.5	86.9	28.5	51.8	46.1	16.8	2.7	15
Bolivia (1976)	37.3	68.5	6.2	23.2	53.2	39.7	1.6	(1980) 19
Barazil (1970)	50.2	57.3	15.8	24.0	55.6	15.2	3.5	(1980) 19
Barazil (1976)	39.4	41.9	12.0	16.6	40.6	27.0	2.1	(1972) 11
Colombia (1980)	32.8	36.8	9.0	13.0	42.1	22.0	1.9	15
Indonesia (1980)	29.8	33.5	7.9	11.4	34.7	11.2	3.1	-
Guatemala (1980)	26.0	47.7	8.8	24.0	31.8	9.7	3.3	-
Honduras (1974)	59.9	77.6	20.0	35.5	37.6	16.5	2.3	(1972) 6
Mexico (1980)	52.1	56.8	17.6	24.0	58.6	28.2	2.4	(1972) 5
Tenya (1981)	39.0	62.0	16.1	22.1	60.0	20.8	2.9	11
Nicaragua (1980)	63.8	67.0	-	-	54.4	21.1	2.6	(1972) 13
Nigeria (1980)	-	-	-	-	43.2	15.0	2.9	15
Thailand (1981)	-	-	-	-	10.0	7.5	1.3	55
Dunisia (1975)	61.9	89.2	36.9	62.1	65.4	19.5	3.4	(1980) 13
					9.9	3.2	3.1	(1972) 16
					66.0	15.5	4.3	17
					75.4	49.5	2.4	(1980) 16
						49.5	1.5	(1980) 16

Source: Unesco, 1985; World Bank, 1983a.

of China, \$10, and Ghana, \$11). Of course, these cross-country comparisons provide only a rough guide, because education is often financed at different administrative levels, and because the figures do not consider private education.

Another indicator is school enrolments, in which there has been a notable increase over the past three decades. In India, for example, the number of primary school enrolments increased by 217 per cent (four times population growth) during the period 1951-71. Figures on the weighted average of children aged 6 - 11 years enrolled in primary schools in 1980 also seem encouraging: 93 per cent in the low-income countries and 100 per cent in middle-income countries. However, these are averages which conceal wide variations among countries. For example, Brazil had 90 per cent enrolment, Egypt 76 per cent, Bangladesh 62 per cent, Senegal 44 per cent and Afghanistan 33 per cent. Drop-out levels must also be considered. In Brazil's Northeast Region, nearly two-thirds of children abandoned school before the second year (World Bank, 1980). There are also big differences in enrolment figures for boys and girls and between districts. While Sudan, for instance, has a country average of 42 per cent primary school enrolment, female enrolment was only 34 per cent and in one province was as low as seven per cent. On average, 76 per cent of boys and 44 per cent of girls were enrolled in primary schools in the 36 least developed countries. The percentage of rural children enrolled is believed to be only half that of urban children. (FAO, 1983c).

Lack of education is closely associated with rural poverty. A detailed survey carried out by the University of Ibadan, Nigeria, shows that 67 per cent of hired agricultural workers and small farmers were illiterate and had the lowest incomes (Aboyade 1973). Another survey in Sri Lanka by Cornell University found that the rate of illiteracy among hired and unemployed landless labourers was three times higher than average in rural areas. Illiteracy is also associated with a higher rate of infant and child death. The 1978 All-India Infant Mortality Rate Survey, for example, indicated a mortality rate of 139 per 1000 among infants born to illiterate mothers in rural areas, but only 64 where mothers had completed primary education. Kenyan statistics show a death rate of 101 among infants of illiterate mothers, compared to 82 among those whose mothers had one to six years of education. Finally, the death rate among the infants of illiterate agricultural workers in Costa Rica is about 50 per cent higher than the rate among workers with a minimum of three years schooling.

A report from the Matlab area of Comilla District, Bangladesh, in 1977 (D'Souza, 1984) offers an interesting analysis of the combined impact of education and land tenure

status on health. Among uneducated small landowners the child death rate was measured at 23, while among landless agricultural workers it was 32.8. But among landless agricultural workers with one to six years of schooling, the death rate fell to 26.9.

Table 2.7

Correlation between the percentage of undernourished and other characteristics of poverty

<u>Other Characteristics of Poverty</u>	<u>Correlation Coefficient</u>
Adult illiteracy rate	0.5
Infant mortality rate	0.5
Life expectancy at birth	- 0.5
% of households with access to safe water supply	- 0.6
Income (per caput)	- 0.4
Population per physician ratio	0.5

Source: FAO Statistics Division, Rome, 1984

So far, we have discussed each of poverty's characteristics separately. But in the lives of the rural poor, nutrition, health and education status are intimately connected. The multi-dimensional nature of poverty characteristics has been confirmed recently by a cross-country analysis based on FAO estimates of the percentage of undernourished and on other socio-economic indicators in 95 countries (Table 2.7). The results show significant association between the extent of undernutrition, low per capita income or expenditure, access to safe drinking water, infant mortality, adult illiteracy and the population/physician ratio.

Chapter Three

INEQUALITY OF INCOME DISTRIBUTION

The purpose of this Chapter is to examine the extent of inequality of incomes between rural and urban areas and within rural areas as a whole. A simple way of determining the relative income positions of various population groups is to compare their per capita income levels. This gives us average income, but does not reveal anything about how the total income is shared or what proportion of the total population is within the higher or lower income brackets. For this measurement, we can compare the distribution of income shared between population groups - for example, between deciles (or tenths) of total population.

It must be remembered, however, that there are methodological and data limitations which make any of these measures only broad statements about size distribution of income. There are also problems in measuring income. For example, income may be in cash but also in kind, which is not easily quantifiable; the "income-receiving unit" may be an individual or a household; adjustments made for households of different sizes and age-group structures may not always be the same. Income surveys in different time periods will produce significantly different results: income inequality may be less during a peak agricultural season, when employment increases and prices fall, than during a slack season when jobs are scarce.

Income differentials

Rural-urban Data on average per capita incomes/expenditures in the rural and urban areas of developing countries are not strictly comparable, but approximate conclusions are possible. Research into the rural-urban gap in Africa has revealed that urban income is from two to eight times greater than rural income in some countries. It is very high in countries like Kenya, Nigeria and Lesotho (ILO/JASPA, 1982a). In the few countries of Latin America and the Near East for which data is available, the ratio is 2:1 in favour of urban areas, while in Asia it ranges from 1.2:1 (Republic of Korea) to 1.8:1 (Bangladesh). Ratios do not alter markedly if we consider average incomes or expenditures of the poorest 10 per cent of the rural and urban populations (Table 3.1). Incomplete data may account for some of the pronounced variations, but the income differentials in Asian countries of less than 2 to 1 seem too low, given the differences in productivity between agriculture and non-agricultural occupations.

The value of using these ratios could be questioned. First, rural incomes include not only the meagre earnings of poor peasants, the landless and small traders, but the considerably larger incomes of landlords and large and medium farmers, as well as money-lenders and large-scale traders operating in rural areas. The incomes of the latter group would tend to bolster the average rural income as compared to the urban average. Second, statistical estimates of average urban incomes may be depressed because many rural people commute to work in the cities; although their income is generated in urban areas, it would count in household surveys as rural income. Also, the ratios given here provide only a rough basis for comparing urban and rural levels of living. Rural people often receive payment in kind as well as cash; they may pay less for food; they have more scope for collecting fruits and vegetables and catching fish; they breathe fresher air. On the other hand, urban dwellers may have

Table 3.1

Income Differentials Between the Poorest 10 Percent in Urban and Rural Areas in Selected Countries

Country	Ratio between income of lowest 10% in urban and the lowest 10% in rural areas		Ratio between the national average urban and average rural areas	
	Year	Ratio	Year	Ratio
Bangladesh	1973/74	1.3	1976/77	1.8
Brazil	1980	1.1	1980	2.1
India	1972/74	1.4	1975/76	1.4
Indonesia	1976	1.6	1976	1.7
Malaysia	1973	1.7	1973	1.7
Tanzania	1973/74	4.5	1976/77	2.4
Tunisia	1975	1.4	1980	2.1

Source: Denslow and Taylor, 1983; FAO, 1982b, 1983d

access to safe drinking water, hospitals and schools. It is not easy, therefore, to say whether the urban poor are better or worse off, in welfare terms, than their rural counterparts. Indeed, it can be argued that urban poverty is one of the worst manifestations of rural poverty - if the rural poor had more access to land and employment they would not be drawn towards the cities in such growing numbers.

Differentials within rural areas There is considerable inequality of income within rural areas, based on regional differences, occupations, sex, race and age group as well as educational achievement, religious affiliation and access to services or markets.

There are numerous examples of inter-regional income disparities. In the Northeast of Brazil, where most farms are small subsistence peasant holdings, average rural income is only half that of the Southeast region, which produces mainly cash crops, and the Frontier region, which benefits from public investment and low population density (Denslow and Tyler, 1983). In the Central and Northwestern regions of Tunisia, per capita income is much lower than in the North-east, where the capital is located. There is also distinct regional inequality in rural Egypt, due primarily to imbalances in government investment, particularly in social services. In Indonesia, output per farmer in Java and Sulawesi is on average only a third of that of farmers in Kalimantan. In Côte d'Ivoire the average rural income in the South is seven times that of the North, due mainly to the pattern of agricultural growth: export crops have been cultivated in the South and traditional crops with limited productivity in the North. The result has been a steady exodus of rural people towards the South, which now accounts for 80 percent of the total population (Lee in Ghai and Radwan, 1983). Regional disparities exist also in China. Due to poor natural conditions and production facilities, the average annual income of a member of a production brigade in some regions of China is less than 60 yuan, compared with nearly 587 yuan in Henan Province. (Du Runshung 1981).

Within a region, income inequality may also arise between different villages or different occupation groups. Villages close to towns and cities - and therefore to large markets for high-value agricultural products such as milk, fruit and vegetables - have higher incomes than those further away. Village size may also be a factor in income differences. In Botswana a survey has found that the average household income in large villages (between 10,000 and 30,000 inhabitants) is 1.5 times higher than that of smaller villages (Ghai and Radwan, 1983).

Information on rural women's incomes is scarce. However, data on agricultural wages presented in Table 3.2 indicate that women in development countries earn between half and three-quarters as much as men. Since women often do not have equal access to subsidized credit and other official support for agriculture, households headed by women probably have much lower incomes than others. Children form another disadvantaged group. Despite national legislation against child labour, the practice of employing children continues in one form or another in most developing countries. Poor rural parents usually cannot afford to send their children to school and, in any case, need them at home to collect fuelwood and dung and help in the fields. Even in countries where primary education is compulsory, child labour is common. Data on wages paid for child labour is not normally available, since many governments deny that the practice exists. However, data from Brazil on age-related income differentials shows that in 1976 children between 10 and 17 years of age receive less than a quarter of the income accruing to adults (taken as 25 to 35 years age group). Even those from 18 to 24 years old receive less than half the average adult wage. These differentials may be explained partly

Table 3.2

Female Wage as a Percentage of Male Agricultural
Wages in Selected Countries
Male = 100

Countries	Percentages	Countries	Percentages
Chile (1979)	106.0	Korean Rep. (1980)	74.7
Costa Rica (1980)	72.7	Mauritania (1972)	41.0 (a)
Egypt (1975)	45.0	Philippines (1976)	62.0
El Salvador (1978)	88.5	Sierra Leone (1979)	65.0-75.0
Guyana (1977)	57.6	Sri Lanka (1976)	75.0 (b)
India (1974/75)	70.0	Tanzania (1973/74)	79.0
Jamaica (1976)	81.0	Venezuela (1980)	77.9

(a) Sugar and tea plantations only

(b) Plantation only

Source: FAO, 1983e - Table 1, pp.16-25

Table 3.3

Classification of Countries by Degrees of Inequality
Within Rural Areas

Rank of Gini- Level of coefficient	Level of Inequality	Africa	Asia	Near East	Latin America
0.40	Low	Sierra Leone Lesotho Nigeria Kenya	India Indonesia Sri Lanka Pakistan	Algeria Cyprus Iraq Egypt Jordan Tunisia	Costa Rica
0.41-0.45	Moderate	Ghana	Bangladesh	Morocco Iran	
0.46-0.50	Relatively high	Zambia	Phillipines Malaysia		Trinidad & Tobago
0.50	High	Botswana	Nepal		Brazil

Source: Denslow and Taylor, 1983; FAO, 1982b, 1983d;
ILO/JASPA, 1982a; UN, 1983a; various ECWA data.

by the low wages paid to apprentices, and partly by Brazil's high levels of unemployment and underemployment. But whatever the cause of the problem, the fact remains that children of school age are prevented from receiving an education in societies where education, like wealth, is one of the principle means of vertical mobility.

The relation between educational level and income is illustrated by another set of statistics from Brazil, showing that people with primary-level education earn up to three times as much, and university-educated people up to 18 times as much, as people with no education at all (Denslow and Tyler, 1983). In the Republic of Korea, college graduates receive more than four times the income of workers with only primary education (Koo, 1984). Capitalized over a certain period of time, income differentials like these can only produce phenomenal differences in lifetime earnings.

Levels of overall rural inequality

To form an overall view of levels of income inequality within rural areas in developing countries, we use national income statistics and the results of household surveys to determine the share of total income (or expenditure) of each tenth (decile) of the total population. Table 3.3 summarizes the degree of income inequality using the Gini co-efficient, the values of which vary between 0 and 1: the higher the value, the greater the inequality. Out of eight African countries for which recent estimates are available, four -- Kenya, Lesotho, Nigeria and Sierra Leone -- had Gini co-efficients of less than 0.4, which would signify low levels of inequality. In Ghana, Tanzania and Zambia the coefficient ranged from 0.4 to 0.5, a moderate level of inequality. Only Botswana had a high reading of more than 0.5. In Asia, inequality was low in India, Indonesia, Pakistan and Sri Lanka, moderate in Bangladesh, Malaysia and the Philippines, and very high in Nepal. Of eight Near Eastern countries, Algeria, Cyprus, Egypt, Iraq and Tunisia had low levels of inequality, while Morocco and Iran had moderate inequality. Estimates for rural areas are available for only three Latin American countries (the level was high in Brazil, low in Costa Rica) but national estimates indicate that Ecuador and Mexico have moderately high levels of inequality, while Colombia would fall in the moderate group. The evidence suggests therefore, that inequality of income is highest in Latin America.

It is difficult to say anything with certainty about national levels of income distribution in China. However, there is limited evidence at the local level. A comparison of household incomes within five production teams (the lowest level in the rural organization hierarchy) in 1981 revealed a Gini co-efficient of 0.2 or less. In one team it was as low as 0.11. The researchers conclude that private earnings, which for some families constitute a significant proportion of income, have not accentuated inequality. In fact, an analysis at team level indicates that when private income is added to collective income, inequality diminishes. Between the communes (ten were studied), the ratio of the highest to the lowest income was only 2.02, indicating that the richest commune is only twice as wealthy as the poorest (Griffin 1984).

Table 3.4 outlines the relative income position of the rural poor by comparing the income or expenditure of the richest and the poorest deciles within urban and rural areas. The differential within rural areas between the richest and poorest range from 6.9 in Iraq to as much as 37.2 for Kenya, with a range of 7 to 20 being quite common. The same Table shows, however, that differentials between the richest and the poorest in urban areas are little better and sometimes worse, suggesting that the very poor suffer wherever they are.

table 3.4

Income Differentials within Rural and Urban Areas (given by the ratios of the income or expenditures of the highest and the lowest income deciles) in selected countries

Country	Year	Household Income (HI) or Expenditure (HE)	Ratio between the highest and the lowest income groups in their respective areas		
			Rural	Urban	National
Bangladesh	1973/74	H I	9.9	10.3	10.2
Botswana	1974/75	H I	26.3	-	-
Cyprus	1971	H I	11.5	8.3	-
India	1972/73	P E	7.2	7.9	8.1
Indonesia	1976	P E	7.7	8.1	8.6
Iraq	1972	H E	9.4	9.4	9.7
Kenya	1974/75	H I	37.2	-	-
Morocco	1970/71	H E	19.4	31.0	28.0
Pakistan	1971	H I	10.2	11.3	11.1
Sri Lanka	1980/81	H E	11.7 (Rural) 12.5 (Estates)	15.3	12.9
Trinidad & Tobago	1970	H I	22.7	29.0	25.5
Tunisia	1975	P E	14.9	15.3	19.2

Source: Ghai and Radwan, 1983; Various FAO and World Bank data

H = Households; I = Income; P = Persons; E = Expenditure.

Table 3.5

Average Income of the Lowest Income Decile in Rural Areas as a Percentage of the Average National Income and Average Rural Income for Selected Countries

Country	Year	Average Income or Expenditure of the Lowest Income decile as a % of	
		National Average Income or Expenditure	Rural Average Income or Expenditure (in percentages)
ASIA			
Bangladesh (HMI)	1973/74	26	27
India (PME)	1979/80	32	36
Indonesia (PME)	1976	28	31
Malaysia (HME)	1973	16	20
Pakistan (HMI)	1978/79	23	26
Sri Lanka (HME)	1980/81	31	33
NEAR EAST			
Morocco (HAE)	1971	13	18
Tunisia (PAE)	1975	14	20
LATIN AMERICA			
Brazil (EAPAE)	1980	10	18

Source: FAO 1983d; Denslow and Taylor, 1983

H = Households; E = Expenditure; P = Per Person;
EAP = Economically active population; I = Income;
M = Monthly; A = Annual.

The extent of rural poverty can be examined by comparing the average income of the lowest decile of the rural population with national average income/expenditure and average income/expenditure in rural areas (Table 3.5). We find that in

almost all of the nine countries surveyed, the poorest of the rural poor received less than a third of average national income. In Brazil their share was a very low 10 per cent. Even when we compare the income of the poorest with average rural income, the situation improves only marginally: in India, and Sri Lanka, their income is a third or more; in the others, it ranges from 16 to 31 per cent. Direct comparison with the poverty line is possible in only two countries, India and Indonesia: in both cases average income of the poorest 10 per cent of rural people comes to only 42 per cent of the national poverty line. It is obvious that in none of the other countries surveyed could rural people in the lowest decile meet their minimum basic needs.

Evidence shows that the rural poor have lost in relative terms to their richer counterparts within rural areas. For example, in Brazil, where a rapidly growing economy is matched by growing inequality, the lowest decile lost as much as 14 per cent of their share of income between 1970 and 1980, while the rural rich (the highest decile) gained as much as 32 per cent. In Sri Lanka, the income loss of the poorest in the rural sector was rather modest between 1963 and 1978/79 -- 3 per cent of their share. But in the estate sector, where most of the poor live and work, the rich gained 10 per cent. The size of the gain may even have been underestimated because many of the rich in the estate sector may be living in urban areas.

Attempts to explain the origins of income inequality - and of rural poverty itself - are usually couched in economic terms. Some economists insist that inequality tends to increase initially with growth but ultimately declines. This hypothesis assumes, however, that every country goes through a similar "growth process" regardless of their ideologies, land tenure systems, strategies and policies. They also tend to overlook the strong influence of the industrialized countries' economies on development in the Third World. These factors are considered in the following Chapters.

Part Two

EXPLORING THE CAUSAL PROCESS OF RURAL POVERTY

Chapter Four

DOMESTIC DEVELOPMENT POLICIES AND RURAL POVERTY

In some countries the incidence of absolute poverty has increased, and in many others it remains at more than 50 percent of the rural population. However, several countries have managed to markedly reduce poverty levels. In exploring the causes of rural poverty, therefore, it is important to consider the domestic development policy strategies designed by each country to overcome poverty and promote economic and social progress. The aim is to explore how these strategies and policy instruments have reduced, perpetuated or even generated rural poverty. As part of this exploration, population and economic growth in several countries is analyzed, and an attempt made to relate growth patterns to the incidence of rural poverty. (It is assumed that every government wants to raise the living standards of all sections of the population; it is granted, therefore, that in drawing up their development plans, developing countries do not intentionally design strategies and policies to increase poverty, urban or rural.)

Development strategies adopted by developing countries are so complex that they cannot be summarized or styled in one single term: export-oriented, import-substituting, growth-oriented, welfare-oriented, inward-looking, outward-looking, market or centrally planned economy, etc. Each country's structural characteristics are so complex that there is no pure case. Most countries have adopted a mix of policy strategies and there is no simple dividing line between structural changes and the policies associated with them.

The Republic of Korea, a country usually considered a success story of rural development, provides an interesting example. It can be seen as an export-oriented market economy with a high degree of private investment, including direct investment by multinationals. It can also be presented as centrally planned, since there is a high degree of state intervention and control of the economy. It can also be classified as a country with a quasi-egalitarian rural system based on radical structural reform under a market-oriented economy. Therefore, for domestic development strategies, it is not helpful to label countries' structural features and strategies using an over-simplified typology.

Development Priorities

Countries differ in size and natural factor-endowment, length of independence, and political and social structure. These are factors which all affect their stage of development. Therefore, policy makers cannot determine the development priorities in their countries' strategies purely on economic grounds. The set of policies in their development strategies determines which socio-economic groups of the population benefit or lose and how wealth and income is distributed. Policy questions of who benefits and who loses are political decisions in development management, based on the power structure of the country. Given the constraints and availability of human and economic resources, how are today's levels of rural poverty, undernourishment, infant mortality rate, and illiteracy, the products of policy makers' decisions? To find an answer, other questions must be raised. In designing development strategies and policies, have poverty and inequality been central to their perceptions and their efforts to steer the pattern of development? What priority have they given to agricultural growth, land tenure improvement and rural development? Do they have equity and poverty reduction as the core objective in their pricing policies and in the programming of public investment? Are scarce resources and related programmes of public spending directed towards benefiting the lowest income groups? Have they favoured urban areas over rural, industry over agriculture, defence over health and education, investment in the isolated pockets of modern capital intensive agricultural schemes over the food-producing peasant sector? Has the focus of policies been on redistribution of existing productive assets or on a gradual improvement by transfer of income through, say, subsidies and taxation?

Assessing a country's progress towards meeting its own development objectives is difficult when various indices of success or failure are moving in different directions. However, we can make some observations about individual countries by taking into account several equity and growth parameters and variables, such as level of poverty, life expectancy, prevalence of illiteracy, food production, calory supply, distribution of land and income, levels of GDP per head and agricultural GDP per head per agricultural population and the growth rates of these countries. However, before analysing data from various developing countries, some observations should be made.

Broad development patterns -- with widely differing consequences for the poor -- can be identified. First, in those countries, which have managed neither to achieve a rapid rate of growth nor to implement effectively major structural changes such

as Bangladesh, India and the Philippines the incidence of rural poverty remains very high. This is so despite partial land reforms and not unimpressive growth rates in agriculture. Poverty incidence remains high also in most of the African countries where despite a relatively low concentration of land holdings, GDP and agricultural output have not increased fast enough to cope with population growth. In many of those African countries whose economies are still in a transitional stage, development priorities have not been clearly pronounced with regard to equity and growth. At the same time, falling rates of total and agricultural production, combined with a sharp decline in arable land per capita, are serious indicators of widespread poverty in the region. Rural poverty is also high in many Latin American countries which have opted for a rapid rate of economic growth and achieved a high level of average income per head, but have high concentration of landholdings and a high degree of inequality in income distribution.

On the other hand, the rural poor have gained most in countries such as Egypt, China, Cuba, the Republic of Korea, Malaysia, Nicaragua, Sri Lanka, Tanzania and Tunisia, which have given priority to the redistribution of growth benefits and redistribution of land, investment in education and primary health care, and food subsidies.

Brazil and India, two countries with large populations and high poverty incidence (50 per cent and more), illustrate different approaches to development. Brazil has pursued a vigorous growth and export-oriented strategy which produced impressive rates of economic growth and which were sustained for almost twenty years (1960-80). However, this development strategy has long been the subject of debate centred around the extent to which the market forces are capable, without government intervention, of redistributing the benefits of economic growth to all, particularly the poorest, sections of the society. While incomes have increased both overall and in agriculture, the period between 1960 and 1980 was accompanied by an increase in inequality of income distribution, the Gini Coefficient of which rose from 0.499 in 1960 to 0.568 in 1980; the land concentration index was also very high - 0.857 in 1980. Despite public investment in education and health, rural poverty was high in 1980 (between 68 and 73 percent).

Brazil's strategy tied the domestic economic structure to international market forces and did not provide for agrarian structural changes. It is the distribution of the asset base which holds back any substantial improvement in equity. The total area held by five percent of the largest land holders rose from 67.9 to 69.3 percent during 1960 - 1980. In the Northeast,

where the highest incidence of poverty still prevails, the concentration of land has worsened - from 65.0 percent in 1960 to 68.3 percent in 1980. Despite having one of the highest per capita income levels among non-oil exporting countries, Brazil has seen a worsening of rural living standards, particularly since 1980. Poverty, inequality of income distribution in rural areas, and concentration of landholdings are all high. Brazil trails far behind several developing countries in making equity a development priority.

India has set out to achieve sustainable economic growth and reduce poverty levels through programmes like import-substitution, industrialization, technological advances in agriculture and land reforms. All were instrumental in reducing poverty levels in the 1970s. However, while India recorded growth rates in agricultural production of 2.8 percent a year between 1952 and 1980, and claims to be self-sufficient in food, its rural poverty levels are still high (50.7 percent in 1979). High population growth of 2.5 per annum and low agricultural productivity in the 1950-60 period, combined with an inequitable land tenure system and low rates of economic growth (3 per cent a year), contributed to an incidence of poverty in the late 1960s of 54 percent. Since the late 1960s, development objectives have been clearly directed to slowing down population growth, increasing the productivity in agriculture and improving the incomes of the lowest socio-economic groups. Seen in terms of development strategies, Indian agriculture preserved its system of small farmer ownership, with sharecropping and tenancy in some areas. As a result, India's landless labourers and subsistence farmers tend to suffer far more than other sectors of rural society during lean years when earnings are drastically reduced and food is scarce. This is not to deny India's great achievement in doubling cereal production during the last two decades.

Population and economic growth patterns

The data presented in Tables 4.1 and 4.2 allow an analysis of development patterns in 53 developing countries between 1969 and 1982. By themselves, rates of growth in total Gross National Product (GNP) and Gross Domestic Product (GDP), and of agricultural GNP and GDP, are indicators of economic activities. By relating them to population growth and particularly agricultural population, they do indicate positive or negative annual rates of growth per head. However, growth rates do not represent other dimensions of development: income distribution, social and political power and the quality of life of the rural

population. It is for this purpose that poverty indices such as life expectancy at birth, the percentage of rural poverty, and per capita food production and calorie supply are also used.

Economic growth is unbalanced or distorted when the GDP rate of growth is unable to provide employment to the net additions of population in the labour force and meet the increasing demand for food. Rapid economic growth (agricultural and non-agriculture) is essential in any development strategy, not only to keep pace with growth in population and provide productive employment to the entrants in the labour force, but to generate increased savings for investment. Absolute poverty results from the failure to redistribute the benefits of growth so that the poor can participate in the country's development. The failure of employment to keep pace with population growth, even when the total economy (GDP) has grown rapidly, coupled with the failure to meet the rising demand for food, is one of the most critical factors influencing the prevalence of poverty.

A fall in per capita food production is not in itself a problem, as long as production in other sectors is increasing, and exports of other goods provide foreign exchange for food imports. When most of the labour force, being unskilled, is still engaged in agriculture, as is the case in most of the countries with a high level of rural poverty, low agricultural production and population increase are not independent. The importance of productivity is stressed further in figures of labour force participation in agriculture: Ghana with 53 percent of its labour force in agriculture has 55 percent absolute rural poverty. The corresponding figures for other countries are Tanzania, 83 percent and 60 percent; Kenya, 78 percent and 50 percent; Bangladesh, 74 percent and 81 percent; Nepal, 93 percent and 61 percent; and Zambia 67 percent and 52 percent. Low productivity per worker in agriculture is not due only to population pressure but to other factors, including lack of investment in training and extension, distorted prices, lack of irrigation and poor health conditions of the rural people.

To illustrate with empirical evidence that population growth cannot be made a scapegoat for the high incidence of rural poverty, consider the examples of Malaysia, Thailand, Honduras, Egypt and Guatemala, each of which has 50 to 60 percent of its labour force in agriculture. Over the period 1969-82 all these countries experienced a rate of population growth above 2.6 percent (in some of them the rates are above 4 per cent). These five countries have reduced absolute rural poverty and the rate of per capita calorie supply has increased.

Table 4.1

Distribution by Annual Growth Rate of GDP vis-à-vis Annual Growth of GDP and Poverty Indices
- Life Expectancy at Birth (years) and Percentage of Rural Poverty

		Average Annual Growth Rate of Agricultural GDP 1970-82		
		0% - 2%		2.1% - 4%
		Above 4%		
Average annual GDP growth rate (70-82)				
DEC 12.11/2		47 Ethiopia 65%	38 Sierra Leone 65%	53 Indonesia 44%
Negative		48 Madagascar 50%	53 Papua New Guinea 75%	67 Korean Rep. 11%
55 Ghana 55%		49 Mauritania 48%	70 Argentina 19%	68 Maldives 36%
50 Nigeria 38%		51 Zambia 52%	58 Nicaragua 19%	69 Thailand 34%
73 Jamaica 51% N=4		46 Nepal 61%	60 Guatemala 54%	73 Brazil 70%
0% - 3%		63 El Salvador 32%	60 Honduras 54%	74 Paraguay 50%
58 Peru 68% N=7		58 Venezuela 56%	61 Tunisia 15% N=7	75 Sudan 5%
N=4		47 Burundi 85%	57 Kenya 60%	76 Malaysia 38%
3.1%-6%		45 Mali 48%	44 Malawi 85%	77 Thailand 34%
48 Benin 65%		52 Tanzania 50%	46 Burma 40%	78 Philippines 41%
45 Niger 35%		55 India 50.9%	69 Sri Lanka 26%	79 Colombia 67%
68 Trinidad 39%		71 Panama 30%	71 Costa Rica 34%	N=5
6 Tobago 4%		54 Haiti 78%	60 Guatemala 54.9%	
39 Somalia 60%		52 Morocco 45%	68 Venezuela 56%	
N=4		N=5	N=9	
Above 6%		53 Indonesia 44%	67 Malaysia 38%	
53 Lesotho 55%		62 Dominican Rep. 11%	63 Thailand 34%	
64 Jordan 17%		63 Ecuador 65%	64 Brazil 73%	
N=2		65 Mexico 49%	65 Paraguay 50%	
		57 Egypt 25%	47 Sudan 70%	
		61 Tunisia 15% N=7	N=5	

Source: FAO, 1984d, 1985c. Figures before countries = life expectancy at birth; figures after = % absolute poverty

Table 4.2
**Distribution of 53 Developing Countries by Rates of Growth of Population, Per Capita Food Production 1969-82
 Related to Changes in Per Capita Calorie Supply and Absolute Rural Poverty**

	Rate of Growth of Population	Rate of Growth of Per Capita Food Production 1969-82		N=4
		Negative	(0-1%)	
Less than 2.5%	(-1.2) Burundi	(0.5%)	(-2.4) Lesotho	(55%)
	(-1.5) Chad	(0.5%)	(-0.5) Mauritania	(48%)
	(-1.7) Ethiopia	(0.5%)	(-0.5) Nepal	(61%)
	(-0.1) Haiti	(-1.5%)	Trinidad & Tobago	(39%)
	(-0.3) Jamaica			
				N=9
				N=7
2.6-3%	(-0.4) Bangladesh	(0.1%)	(-0.1) Madagascar	(50%)
	(0.4) Benin	(0.5%)	(0.5) Morocco	(45%)
	(-1.1) Dominican Rep.	(-0.4%)	Papua New Guinea	(75%)
	(0.6) Ecuador	(0.5%)	(-0.5) Peru	(68%)
	(1.9) Egypt	(2.5%)	(-0.5) Sierra Leone	(65%)
	(-2.0) El Salvador	(-0.2%)	(-0.6) Zaire	(80%)
	(0.3) Mali	(-0.8%)		N=13
3.1% and above	(-1.4) Ghana	(0.5%)	(0.6) Nigeria	(38%)
	(0.5) Honduras	(0.9%)	(-0.7) Somalia	(60%)
	(0.4) Jordan	(0.1%)	Tanzania	(60%)
	(-1.3) Kenya	(0.5%)	Venezuela	(56%)
	(-0.6) Malawi	(0.85%)	(-1.1) Zambia	(52%)
	(-0.8) Nicaragua	(1.9%)		N=11
				N=3
- 53 -				

Source: FAO 1984d, 1985b. Figures before countries = rate of change in per capita calorie supply;
 figures after = % of rural population in absolute poverty.

Has the prevalence of high poverty been caused by slow economic growth or not? Developing countries as a whole enjoyed sustained economic growth in 1960-1982. While industrial countries (that is, members of the OECD) experienced a slow down in productivity growth (from 5 percent in the 1960s to 3.3 percent in the 1970s), the developing countries did better. Growth, measured in weighted per capita GNP per person, was 3.6 percent for all middle income countries during 1960-82. This is higher than the record of OECD member countries which was 3.3 percent weighted average during the same period. Using agricultural GDP rates of growth, countries like Brazil, Paraguay and Ecuador in Latin America, Malawi and Kenya in Africa, the Philippines and Indonesia in Asia and the Sudan in the Near East, achieved sustained high GDP rates of growth (averaging between 3 and 4.5 per cent agricultural GDP) over the period 1960-82. Despite this record, they have experienced a high level of absolute rural poverty (41 - 85 per cent).

What are the implications of these growth rates for food supply? Considering the rate of growth of per capita food production and the supply of per capita calories, all these countries except Malawi have performed well, but have nonetheless experienced widespread poverty. There is also evidence of a low rate of growth of per capita food and calorie supply, regardless of total GDP growth rates. For example, the annual average GDP growth rate (1970-82) was 8.4 percent in Egypt and 5.5 percent in Kenya. But the average rates of growth of per capita food production were -1.1 and -1.7 respectively. Among countries with slower GDP growth rates, per capita food production growth was also negative. For example, Bangladesh (4.1 percent of GDP growth rate), Ghana (-0.5 percent) and Nepal (2.7 percent), had annual average rates of growth of per capita food production of -0.5, -4.3 and -1.5 percent respectively. The same pattern of differentials emerges with regard to the GDP growth rates and per capita supply in all 53 countries. In 13 of these countries, despite a positive growth of total GDP, there was a negative rate of change in per capita calorie supply during the same period (1970-82).

These figures reveal neglect of food production and to a greater extent calorie supply which obviously constitute an important factor in the perpetuation of poverty. The increase in food production and supply does not automatically mean that all sections of the population, especially the poor households in 'food deficit' rural areas, have enough to eat. The above are merely mathematical averages. The fact that there is a prevalence of poverty means that part of the population is undernourished and do not have access to food, whether produced domestically or imported.

Public Investment in Agriculture and Human Capital

Have Third World development strategies given sufficient priority to agriculture? In other words, have governments been allocating adequate financial resources to agriculture and, in particular, to those items of social development which might help the rural poor?

Stagnation in agricultural sector. To answer this question, a "fair share" of investment in agriculture and an "adequate" level of resources must be defined. It is well known that given certain technology, increases in GDP require a certain rate of investment. If agricultural output can be increased by intensive use of labour and traditional technology, the capital requirement is low; if modern technology is needed, the capital required would be much higher. This relationship can be expressed in terms of the capital/output ratio (i.e. units of additional capital required for an extra unit of output). For instance, if the ratio is 2:1, a five percent rate of growth of agricultural GDP would require 10 per cent of the agricultural GDP to be directed towards new investment in the sector. But if the ratio is 4:1, twice as much capital would be required.

Since most countries of the Third World, particularly those in Africa, need major public investments in physical infrastructure (such as irrigation, storage, transport) for agricultural development, anywhere between 3:1 and 4:1 -- or even more -- is probably the appropriate capital/output ratio in most developing countries. If we know the proportion of GDP generated by the agricultural sector as well as the overall gross fixed capital formation for a country as a whole, we can translate the capital requirement in agriculture into national terms. 1/ If the desired rate of growth of agricultural output is 4 percent a year -- which is a realistic estimate for many developing countries for the foreseeable future -- then the capital-output ratio is 3:1, the share of agriculture in GDP is 33 percent and the rate of investment as a proportion of GDP is 20 percent. At least 19.8 percent of the total investment has to be devoted to agriculture. Table 4.3 presents the performance of 20 developing countries on the basis of their respective shares of agriculture

1/ This is done using a simple formula suggested by Rajkrishna, $\frac{g}{k}$ divided by s , where g is the desired rate of growth of agricultural output, k is the capital output ratio in agriculture, r the share of agriculture in GDP and s is the proportion of GDP going into gross capital formation (Rajkrishna, 1982).

Table 4.3

Countries Meeting or not Meeting Capital Requirement in Agriculture
If a 4% Growth Rate of Agricultural Output Is to be Achieved on
Alternative Capital/Output Ratio Criterion

CAPITAL/OUTPUT RATIO 2:1

Those who did not meet requirement

Kenya
Costa Rica
El Salvador
Guatemala
Iran
Pakistan

Those who did meet requirement

Cyprus
Egypt
India
Korean Rep.
Lesotho
Libya
Mauritius
Swaziland
Syria
Thailand
Tunisia
Venezuela
Yemen Arab Republic
Zimbabwe

CAPITAL/OUTPUT RATIO 3:1

Costa Rica
El Salvador
Guatemala
Iran
Kenya
Mauritius
Pakistan
Swaziland
Syria
Thailand
Yemen

Cyprus
Egypt
India
Korean Republic
Lesotho
Libya
Tunisia
Venezuela
Zimbabwe

CAPITAL/OUTPUT RATIO 4:1

Costa Rica
Egypt
El Salvador
Guatemala
India
Iran
Kenya
Korean Rep.
Lesotho
Mauritius

Pakistan
Swaziland
Syria
Thailand
Venezuela
Yemen
Zimbabwe

Cyprus
Libya
Tunisia

in the GDP and the rate of investment according to three alternative assumptions about capital/output ratio (2:1, 3:1 and 4:1). If we assume a capital-output ratio of 2:1, at least six out of 20 countries do not allocate enough investment to agriculture. If the ratio is around 3:1, then as many as 14 countries do not meet the minimum capital requirement. The number rises to 17 if the capital/output ratio is assumed to be 4:1. If 3:1 is the minimum ratio for developing countries, as suggested earlier, then more than half the countries for which data were available did not allocate adequate funds for agricultural investment and only three -- Libya, Tunisia and Cyprus -- met the investment requirement based on all three assumptions. From this, it could be plausibly concluded that the majority of developing countries have so far failed to redirect adequate resources to agricultural development.

The results obtained in Table 4.3 must be viewed with caution since the agricultural investment examined here does not include that made by the private sector, including investment by farmers and cash remittances from relatives in urban areas or abroad. Also it is not easy to demarcate the part of infrastructural investment (i.e. on roads, railways, etc.) which could be considered as a transfer to rural areas.

Of course even where an "adequate" share of public investment does go to agriculture, it does not necessarily follow that the rural poor benefit. Detailed estimates of investment going directly to the poor are not generally available. For instance, in India the proportion of expenditure in agriculture going to social categories (including community development, cooperative organizations, land reform and rural employment) totalled less than 30 per cent during the Fifth Plan, increasing to 50 per cent in the Sixth Plan. But we do not know what proportion of this really went to the rural poor. By and large, investment in technology and infrastructure benefit the richer farmers more. Many other countries also show this tendency. Even with the low share of agriculture in public investment, there is usually a bias for areas owned by large landowners. For instance, in Morocco, irrigated land, constituting 10 percent of total agricultural land, received 57 percent of public investment in agriculture during 1978-1980. The remaining area of rainfed cereal crops, pasture and forestry received very little investment. It is in the latter area that the rural poor live, and where small and fragmented holdings exist (FAO, 1984e).

It is difficult to establish a direct link between agricultural investment and the growth of agricultural output and rural poverty in various countries. But Table 4.4, which presents growth rate estimates for 97 countries in terms of

Table 4.4

Classification of 97 Countries by Growth Rate of Agricultural Gross Domestic Product per Agricultural Population (at Constant Prices) 1961-83

Annual Rates of Growth	AFRICA			ASIA AND PACIFIC			LATIN AMERICA & CARIBBEAN			NEAR EAST	
	Angola Burundi Djibouti	Equatorial Guinea Lesotho	Mauritania Namibia Senegal	Somalia Togo	Mozambique Nigeria Upper Volta Zaire	Nepal	Mongolia	Haiti	Trinidad and Tobago	Sudan Yemen AR	Afghanistan Yemen AR
Negative Over -2.1 per annum N=12											
Negative 0.0 to -2.0 N=21	Algeria Central African Republic	Chad Ethiopia Gambia Guinea	Guinea Bissau Madagascar Mali								
0.01-2.0 N=27	Botswana Benin Gabon	Ghana Ivory Coast Kenya	Liberia Niger Rwanda	Tanzania Uganda	India Laos Pakistan	Papua New Guinea Sri Lanka	Bolivia Ecuador El Salvador	Guyana Honduras Nicaragua Peru	Cyprus Egypt Morocco Syria	N=2	N=3
2.1-3.0 N=17		Cameroon Congo Malawi			Fiji Indonesia Vietnam		Chile Costa Rica Dominican Republic Guatemala	Jamaica Mexico Panama Uruguay Venezuela	Iran Jordan	N=9	N=2
3.1-4.0 N=9					Burma China Malaysia	Philippines Thailand	Argentina Brazil		Tunisia	N=3	N=1
4.1-5.0 N=4					Korean DPR Korean Republic	N=2		Suriname	Lebanon	N=1	N=1
Over 5.0 N=7	Mauritius Seychelles Swaziland						Columbia Cuba Puerto Rico	N=3	Libya	N=1	

Source: FAO Inter-linked Computerized Storage and Processing System (ICS).

agricultural GDP per head of agricultural population at constant 1975 prices between 1961 and 1983, is telling. As many as 33 countries had negative growth rates in agriculture, which clearly indicates that agricultural output was not keeping pace with population growth. In another 27 countries, the rate was less than two per cent, suggesting that in countries where per capita income was growing by 2.5 per cent or more, agricultural output was not meeting food demand for their rapidly increasing populations as indicated earlier.

The situation in Africa is particularly precarious, due to the repeated droughts. Out of 43 countries, 25 had negative rates of growth, while 12 had per capita growth rates of less than two per cent. Thus, only six countries -- Cameroon, the Congo, Malawi, Swaziland, Mauritius and Seychelles -- had growth rates in agriculture of more than two per cent.

Spending on public services. Public concern for agricultural development is also reflected in annual government spending in developing countries, as reported by the IMF (IMF, 1984). There are big differences in organizational structures and budgeting systems among these countries. It is inappropriate to compare defence spending with other categories because military spending is purely a function of central government, while social expenditure is covered at various levels. Given these limitations, two broad conclusions emerge from the IMF figure. First, defence does take up a significant level of central government spending in many developing countries receiving more funds than agriculture in 37 countries out of a total of 59. Eleven countries spend 10 times as much on defence as agriculture. Second, social development at national level does not seem to be neglected, nor does it receive less than defence in most countries. However, in 14 out of a total of 59 countries, expenditure per capita in US dollars 1980 was more on defence than on education and health. Given the levels of rural and urban poverty indicated in Part I, one could easily argue that social development should receive much more.

Even increases in social development spending do not automatically mean more for the rural poor. Much of this expenditure goes to the towns, and mostly to capital cities. In Columbia for example, the poorest 20 per cent of households in large cities received subsidies from the public health sector which were five times larger than that received by the corresponding group in rural areas (Squire, 1979). And social security, which often takes a large share of public expenditure, is usually restricted to the organized urban workforce and civil service in most countries.

The implications of domestic policy instruments related to food

What is the impact of domestic policies related to food on equity and the rural poor? The purpose in examining price policy, production input subsidies and the distribution of subsidized food, is to understand how the benefits created by the use of these policy instruments have been shared among the various social and economic strata in rural areas.

Price policy for agricultural products Many developing countries use price policy as a means of accelerating the pace of agricultural development: they offer to buy agricultural commodities, particularly foodgrains, at pre-determined prices; they hold buffer stocks to stabilize prices, or stocks of foodgrain to supply public distribution systems; and they subsidize the supply of inputs to encourage growers to accept technological changes more readily.

While no one denies the positive impact of price rises on production under normal conditions, the extent of the production increase depends on a number of economic and institutional considerations. If a small farmer's household has excess labour, output can be increased by more intensive use of this labour on his small piece of land. However, experience in developing countries has shown that if land or any other factor of production is limited, an increase in the price of particular products would encourage the transferral of land or any other scarce resource from less to more remunerative crops. For example, if the relative price changes in favour of wheat and against coarse grains -- a major staple food of the rural poor -- a reduction in the supply of the latter could mean less grain for the poor. Of course an increase in the output of wheat would generate additional employment for its production. But if grain prices rise relative to cash crops, there may also be a loss of foreign exchange earnings. If the loss is greater than the savings from food imports it may adversely affect imports of chemical fertilizers, agricultural and other machinery and technical know-how. In the long run this may affect the prospects not only of agricultural but of overall economic development, with serious consequences for the poorest groups.

High prices, particularly for foodgrains, may be inequitable simply because it is large and medium farmers who have more to sell. They are therefore the major beneficiaries of a rise in price. Subsistence farmers and landless workers who have little or nothing to sell may gain in terms of increased employment and wages, but as net buyers they may also have to meet increased costs for purchased food. There is considerable evidence that many people in this group buy a significant part of

their foodgrain from the market. The major beneficiaries of producer price support are often the better-off farmers. In Malaysia, for instance, approximately 40 percent of paddy farmers received less than four percent of all price support payments in 1981 and 1982, while large farmers constituting 25 percent of farmers, received almost 75 percent of these payments (World Bank, 1984b).

In other cases, a small or subsistence farmer does not profit from a price increase simply because under the terms of his debt he is obliged to sell to a trader or moneylender. The multiplicity of intermediaries as well as the inadequacies and inefficiencies of marketing channels make it impossible for the small producer to reap the full benefits of guaranteed prices. Even in those countries where marketing boards operate supposedly to improve agricultural marketing, a hierarchy of officials may defraud poor peasants, no less than private trading channels.

Motivation among small farmers also depends on broader issues such as land rights, tenure relationships, taxation and the availability of consumer goods for sale. It is unlikely that a tenant or a sharecropper would work hard, knowing a landlord or moneylender would reap most of the benefits. Similarly, since most people earn income not for its own sake but for betterment of their (and their children's) lives, the scarcity of consumer goods and amenities may also adversely affect incentives.

Another major problem is that in countries suffering from food shortage, price policy can encourage speculative tendencies. Both the traders and the large and medium farmers tend to hoard grains in the expectation of further price increases in the near future. Such speculative hoarding fuels further increases in food prices and adds to inflation, which is often against the interests of the poor and fixed income groups. The use of price control and rationing tends to encourage black marketing. In situations of scarcity, particularly in countries where large scale speculative stock-holding exists, attempts to increase production by increasing official prices may prove futile. In fact, by giving higher prices to traders and to large and medium producers, one may be increasing their economic power and therefore their capacity to hold more stocks. Since rich farmers and traders escape direct taxation on agricultural incomes much more than their urban counterparts, the role of taxation in reducing inflation is not very effective either. It is therefore important not to look simply at one series of indicators when assessing the implications of price policy for equity.

Subsidized credit and technology. A country's price policy cannot be examined in isolation from its policies on subsidies. Developing countries use input subsidies to reduce the cost to farmers of using a particular agricultural input, and thus increase its use. For this reason, most countries have subsidized inputs such as chemical fertilizers, agricultural machinery and also the credit needed for buying them and for making other agricultural improvements.

But there is ample evidence that unless targeted properly to the small farmers, most of these subsidized inputs go to the rich and medium farmers, often because of their direct or indirect influence over the rural cooperatives, marketing boards and ministries of agriculture. Under these conditions, input subsidies can often be inequitable, in much the same way as guaranteed minimum prices. For example, a study in Morocco indicates that in a large irrigated area, the Gharb, most subsidies benefitted a small number of the large farmers and farm associations. In fact, farmers owning less than 20 hectares seem to have received no subsidies whatsoever, except for animal production. The study found that most of the subsidized credit under a programme in Kenitra region, Morocco, in 1977-78, went to large landowners. Thirty-five percent of the farmers owning less than 20 hectares obtained 11 percent of total credit, while the 24 percent of the farmers owning over 100 hectares obtained about 50 percent of it (Radwan and Thompson 1981). In Algeria, most of the subsidized inputs went to the public sector. According to a World Bank study, in Tunisia, Morocco and Algeria there has been a tendency for subsidies to favour farmers in irrigated areas over small farmers in rain-fed areas (Cleaver, 1982).

Fertilizer subsidies may lead to an increase in the output of crops such as wheat, while production of coarse grains suffer. Since fertilizer replaces some labour, the real wage bill may also decline somewhat. Thus the rural poor's wage losses can outweigh their consumer gains. If coarse cereal prices rise, their cereal consumption may decline by more than their real income loss as they are forced to spend a larger share of their expenditure on coarse grains. The access of the rural poor to institutional credit, supplied at low rates of interest, is also limited. For instance, in 1975-76 more than 85 percent of the value of all loans made by the Bangladesh Krishi Bank (BKB) went to tea producers and farmers purchasing livestock. The bank's annual report showed that less than one-quarter of the total value of its loans went to farmers who owned less than three acres. Similarly, during 1975-76 in Bolivia almost all private bank credits and 70 percent of loan volume under the US AID-financed rediscount programme, went to the Orient region where large farmers predominate, while most of the small farmers

who live on the high plains and in mountain valley regions were untouched (Von Fischke, 1979). A field research in Colombia found out that small farmers without access to public credit were deprived of opportunities to adopt profitable new techniques in production and thus their income was kept low (Donald, 1976).

It is generally agreed that poor, rural, female households do not receive a fair share of the subsidized inputs. Women in The Gambia for instance are responsible for rain-fed and swamp rices and also cultivate groundnuts or cotton in upland villages. During the first Five Year Plan there was no specific programme to help women in groundnut and cotton production. There are many similar examples of this situation. In some countries there has been a debate on differential treatment in subsidizing production inputs. While poor peasants are given subsidies, their richer counterparts are required to buy the input at market price. A system of dual pricing may be somewhat difficult to administer, and the chances of the benefits of subsidized inputs being passed from the poor to the rich farmers cannot be completely ruled out. On the other hand, such pricing is an established practice of public enterprises in developed countries. If this is not done in many developing countries, it is not because the principle is unsound, but because the rich farmers do not allow their governments to do so.

Subsidized distribution of food The usefulness of subsidized food distribution to the rural poor depends on how well it is targeted. Many countries generously allocate a considerable portion of public expenditure on food subsidies. When most of these subsidies are linked to well-nourished groups of the population, there is clearly no benefit to the poor and a depressive effect on the country's development efforts. In Bangladesh, a public rationing system operated extensively between 1972 and 1980, handling nearly 15 percent of all grain available in the country. But more than half of the distributed rations were aimed at civil servants, the police, armed forces, factory employees and students in urban centres. Their share increased from 31 percent in 1972-73 to 66 percent in the late 1970s. In 1973-74, according to one estimate, the public rationing system provided only six to 14 percent of the rural grain consumption as against 60 to 90 percent of urban consumption. In India, a public distribution system supplies nearly 11 percent of total grain in India through "fair price shops". Although the proportion of ration shops in rural areas may be growing, evidence suggests that most of the grain is directed towards urban areas, particularly to the low and middle income population. In Nepal, the public distribution system supplied only 2.4 percent of the total availability and out of this 40 percent went to privileged groups in the urban areas, and 15 percent to the security forces alone.

Finally, an analysis of the subsidized distribution of food in Morocco indicates that in urban areas the top 12 percent get five times the subsidy accruing to the bottom 20 percent. The situation is even more extreme in rural areas, where the share of the top 1.5 percent is about nine times that of the bottom 50 percent. In many developing countries where food distribution schemes are operating, only urban areas usually benefit. This is partly because the urban poor, despite their smaller numbers, wield more of the political clout needed to induce governments to subsidize food prices.

Chapter Five

AGRARIAN STRUCTURE AND RURAL EMPLOYMENT

Land is the basis for the production of food and raw materials. It is also the source of income, employment, economic security and power for most rural people. For this reason, the distribution of rural wealth and the incidence of poverty are intrinsically connected to the socio-economic order which determines the type of access to land and its use in any society. Rural poverty is determined in part by land holding structures, systems of land tenure, the organization of agricultural production and the accumulation of surplus value. Social relations in agriculture are in turn determined by land tenure systems. These institutional and economic relations associated with land tenure constitute the agrarian structure or agrarian system. Both terms used synonymously in this Chapter. Only by exploring the characteristics of the agrarian structure in each developing country is it possible to understand the causes of poverty and the survival strategies of the rural poor. Employment opportunities are largely determined by the prevailing system of land tenure and the associated institutional organization of production (individual, cooperative, state farms, communal or collective, etc.). By rural employment we also mean non-farm employment within rural areas.

Studying the ways in which the agrarian structure conditions the extent of rural poverty is not a simple task. First, the extent of government intervention to reform agrarian structure depends on existing social and production relations and ideological considerations. A government may emphasize increasing production and efficiency over equity or vice-versa, i.e. redistribution before growth. Second, production and social relations as well as employment opportunities within any agrarian structure are interwoven with the power structure peculiar to each country. To explore the link between agrarian structure and rural poverty, we attempt to answer the following four questions.

- (i) How has concentration of land ownership, combined with accumulation of surplus value from high rents and cheap labour (and the mode of labour utilization) helped to trap peasants in poverty?

- (ii) What process within an agrarian system generates poverty?
- (iii) How do other factors external to land tenure, such as commercialization of agriculture and technological innovation, increase inequalities in income distribution and further impoverish rural households?
- (iv) Do non-farm activities within rural areas reduce peasants' dependence on limited employment opportunities in agriculture?

The subject of our enquiry is the peasant sector of agriculture. This consists of landless agricultural workers who depend on their labour to earn their living, and small farmers who operate small plots of land as owners, tenants and share-croppers, relying on family labour and simple equipment to produce mainly for their own consumption and to fulfil tenure obligations associated with tenure relations. These peasants make up the majority of the rural poor. They are called "self-employed", "marginal farmers", "rural workers" or "near-landless". They are known in the Near East as "fellaheen" and in Latin America as "campesinos", "minifundistas", "peon", "yanacona" and "inquilinos".

Many of these terms imply a link between poverty and the size of a farm holding or its terms of tenure. But terms like "small" landholder and "marginal" farmers can be confusing. These terms are country-specific and determined within the economic and social structure of each country. (Definitions of "the small farmer" used in some countries are reviewed in Appendix 3.) The "minimum" size of a landholding necessary for subsistence varies from country to country and is determined according to one of three criteria: the minimum area needed to employ a family to satisfy its nutritional requirement or to produce a basic income. The same piece of land can produce varying income depending on the cropping pattern, intensity of land use and the technology employed. So a subsistence farmholding in Bangladesh is two acres, while in Egypt it is three acres and in Kenya five hectares. Availability of irrigated land for agriculture is not necessarily matched by increased equity. The irrigated land area per capita of agricultural population may well have increased, if slowly, between 1970 and 1981 in Africa, Latin America and Asia. However, as will be explained below, it is patterns of land tenure system and related power relations which usually determine who controls the water supply and who benefits mostly from large-scale and costly irrigation schemes.

Land concentration and poverty

The causal process of poverty in agrarian societies is not simply a problem of population growth and scarcity of land. Population growth is often blamed for the degree of land concentration but institutional structure and the inter-related market forces make the land concentration/poverty relationship more complex.

This section examines the process of accumulation of already scarce agricultural land and the present extent of land concentration, mostly in countries with privately held land. In the absence of government intervention (that is, land reforms and settlement schemes), peasants generally come into possession of land through inheritance and marriage. The extent of scarcity of land and the limits on access to it are reflected in the dynamics of the land market, the availability of arable land per capita and land prices. To illustrate this point: In Egypt prior to the land reform of 1952, the average daily wage of hired agricultural workers was 39 cents (1947 US dollar prices); the capital required to buy one hectare of land was \$4800, or the equivalent of about 11,000 working days or approximately 30 years of wages. The capital needed could not be borrowed from lending institutions which required (and still do) land as collateral for long-term credit (El Ghonemy, 1954). This helps to explain the extent to which peasants are trapped in poverty.

Several factors help to create land scarcity. Globally, the expansion of arable land is not keeping up with the expansion of world population: the amount of arable land per capita declined at the rate of about 0.3 percent a year between 1968 and 1981. Recently the decline has been more pronounced, despite the rapid movement of people from agriculture to the non-agriculture sector. This gap between population and land availability is widening fastest in Africa, where the annual rate of decline over the period 1968-81 was 0.8 percent, and 1.3 percent during 1978-81. This shows high concentration of agricultural population on land in a region with more than half of the world's remaining unutilized arable land. Among Asian countries where the land/population ratio is already critical, the rate of decline was lowest in Thailand and the Republic of Korea - in the former because of large land reclamation schemes, and in the latter due to increasing migration out of the agricultural sector. The more heavily populated countries of the Near East also recorded a net decline in the availability of arable land.

Thanks to their intensified investment in irrigation projects, financed by oil export revenues, Saudi Arabia and Libya were the only countries of the Near East to actually increase the

rate of growth. As a region, Latin America has the highest ratio of land per capita of agricultural population - 1.3 hectares. This grew at an annual rate during 1968-81 of 0.6 per cent, before declining sharply during 1979-81 to 0.3 percent.

Figures on the concentration of land ownership in developing countries are not always available. Several countries do not publish ownership data. Land records are often incomplete and, since some records list only individual owners they tend to underestimate the extent of land concentration by households or families. Agricultural censuses have at best provided information about the distribution of holdings by size and the tenure status of the holders (i.e. owners or tenants). Nevertheless, there is considerable evidence to show that land ownership is more concentrated than the distribution of rural income in many countries. The most unequal distribution of land is found in Latin America, where there is a large number of countries which have high levels of rural poverty despite high average per capita income. After Latin America, distribution is most unequal in countries of the Near East and South-East Asia. Increasing concentration of land ownership is also reported from a number of sub-Saharan African countries. Although the right of individual land ownership is not recognised in many parts of Africa, there is a tendency towards land alienation in various and new forms. These include the introduction and expansion by Europeans of private ownership on tribal lands or settlement as has happened in Kenya, Malawi and Zimbabwe; the awarding of land to individuals or companies as in Malawi and Nigeria and to state farms as in Ethiopia; and the allocation of highly productive land for large private holdings or plantations of multinationals as in the Ivory Coast, Kenya and Malawi. In addition, there may be a great deal of concealed alienation. In a large number of settlements - e.g., Kenya and Brazil - land transfer is not permitted within a given period, yet absentee landownership is growing, tenancies under various names are emerging and actual buying and selling is taking place.

Estimates of the concentration of land holdings in 45 developing countries in various regions are given in Table 5.1. Of 17 countries in Latin America, 10 show concentration indices of over 0.8, which is extremely high indeed and matched only by two of the other developing countries surveyed. Five other Latin American countries had indices between 0.7 and 0.79 and only two had a concentration index of 0.69 or less. However, the concentration of landholdings was high also in other developing countries, particularly in the Near East where four countries out of seven had concentration indices of 0.79 and over. Data available from 57 developing countries show that farms of 1,000 hectares and over made up only 0.1 percent of total holdings but

Table 5.1

Concentration of land holding in 45 developing countries
1970-73

Range of Gini-coefficient	Asia and Pacific	Africa	Latin America	Near East & North Africa	Total developing countries
0.8 and over	1	-	10	1	12
0.7 to 0.79	-	2	5	3	10
0.6 to 0.69	3	-	1	1	5
0.5 to 0.59	4	-	1	1	6
0.4 to 0.49	-	-	-	1	1 Below
0.4	1	10	-	-	11
Total	9	12	17	7	45

Source: Estimated by FAO Statistics Division, Rome 1984.
 Excludes centrally planned economies. Concentration is measured by an index (0-1) calculated for each country's distribution and area of land holdings. For an explanation of this calculation see A statistical analysis - agricultural holdings in the 1970 World Census of Agriculture, Annex 2, FAO, Rome 1984.

Table 5.2

Index for agricultural holdings in selected countries

Country	Census year	Concentration index	Incidence of rural poverty percent
Brazil	1950	0.833	-
	1960	0.835	60
	1970	0.837	73
Colombia	1954	0.850	-
	1960	0.860	-
	1971	0.859	54
Mexico	1950	0.957	-
	1960	0.950	-
	1970	0.938	49
Bangladesh	1960	0.525	-
	1977	0.469	74-81
India	1954	0.678	-
	1960/61	0.583	45 (1964)
	1970/71	0.620	54 (1969)
Nepal	1972	0.690	61 (1977)
Thailand	1963	0.460	56 (1962)
	1972	0.410	34 (1978)
Philippines	1948	0.506	-
	1960	0.508	44 (1965)
	1971	0.509	47

Source: As in Table 5.1

more than 35 percent of the total arable land. At the other extreme, almost 50 percent of all holdings were of less than one hectare and they occupied only 2.9 percent of the total area.

Table 5.2 gives a general idea of how land concentration has changed over time in selected countries and relates these changes to the incidence of rural poverty. There is need for caution in analysing these figures, due partly to delays in implementing land reform in some countries and partly to the changes in the definitions used by periodical agricultural censuses in different countries. However, a valid conclusion is that there has not been a significant reduction in the unequal distribution of land holdings and that there is a clear association between changes in land concentration and the incidence of rural poverty, more in India and Thailand than in Brazil. Bangladesh has a lower index of land concentration but a very high level of poverty which could be explained by the large number of landless agricultural workers, who constitute most of the rural poor, and the increasing fragmentation of holdings.

In Latin America there is no serious scarcity of agricultural land. However while regionally there are 1.3 hectares of land per head of agricultural population, compared with 0.8 ha in the rest of the developing countries, the peasants have severely limited access to this land. In recent years the small farmer sector of agriculture (agricultura campesina or minifundia) has had to accommodate as much as 75 percent of the increase in rural population. While the number of peasants is growing, the size of holdings is falling. But at the same time the commercial sector (composed of large holdings, transnational firms and plantations with high profitability based on capital-intensive, labour-saving technology and cheap labour from the peasant sector), has not generated adequate permanent employment (de Janvry 1981). This expanding commercial sector is being integrated into the global process of capital accumulation through agro-exports.

The integration of commercial agricultural production into the international market has been reinforced by increasingly important technology transfers and foreign investment, which increased almost sixfold from US\$177 million in 1954 to US\$1,022 million in 1963 in real terms. Such rapid expansion was helped by international credit agencies which serve as a link with world capital markets. For example, in Peru, prior to the land reform of 1969 and 1970, a major process of land accumulation took place in the sugar plantations of the Costa region in which foreign capital played an important role. The same process took place in the highlands where part of the communally held land was taken at a high social cost and the "comuneros" became paid labourers and

tenants on their own land (Figueroa, 1978). Before the reform, 80 percent of the coastal area and 75.5 percent of the highlands were owned by 1.7 and 1.3 percent of total landowners.

The present concentration of land in many countries of Latin America can be starkly revealed. Although 70-85 percent of total landholdings in Latin America are small farms of less than 5 ha, on average these make up less than 10 percent of the land area. Farms exceeding 100 ha constitute only 1-4 percent of all holdings and yet claim from one-half to more than three-quarters of the farm area. Land concentration in Central American and Caribbean countries has also increased sharply. In Guatemala the number of holdings below 5 ha increased from 75 percent of the total in 1964 to 79 percent in 1980, while the total area they occupied was reduced. Just 2.1 per cent of Guatemalan landowners possess 73 per cent of the rural land, using most of it to grow coffee for export. Most of these owners are absentee non-agriculturalists engaged in commerce, industry, banking, the medical profession or government. While owners of large coffee, cotton and livestock farms constitute only 3 percent of total landowners, they received between them about 90 percent of total credit to agriculture, while 88 percent of the total number of owners (the minifundia of less than one hectare) received only 6 percent (Griffin, 1981). Farm holdings of 1,000 ha and more cover large areas of other Latin American countries: 30 percent of available arable land in Colombia, 33 percent in Mexico and 40 percent in Brazil. Large farms have increased in number and area in Mexico and Colombia.

The significance of the above is that a high concentration of land holdings means that a large proportion of cultivated land is closed to the increasing number of people seeking land for survival. What land remains accessible is already crowded by farms of extremely small size, increasing the number of agricultural households' dependent on agricultural wages. Thus the asset base of peasants is steadily declining and the income of the rural poor is being determined by the demand for labour in rural areas.

Generating poverty within the agrarian system

The size of farm holdings, combined with the existing institutional organization of production, are the factors which determine employment opportunities, income differentials and the extent of accumulation for further investment in production. In 57 developing countries which took agriculture censuses during 1970-73, 70-77 percent of the total holdings produced for subsistence (i.e. mostly for home consumption). This average ranges from 74 percent of holdings in Africa to 36 percent in Latin America.

Table 5.3

Holdings of Less than One Hectare Each
in Selected Developing Countries, 1950 - 1980

Country	Year	Holdings under one hectare		Country	Year	Holdings under one hectare	
		% of no. to total	% of area to total			% of no. to total	% of area to total
Bangladesh	1974	66.0	24.0	Kenya	1979	-	-
	1978	54.5	33.4		1975	31.8	-
Brazil	1960	-	-	Liberia	1971	52.7	8.5
	1970	8.1	0.1	Mexico	1950	36.0	0.1
Colombia	1954	17.6	-		1960	30.1	0.1
	1971	23.0	0.4		1970	25.0	0.1
	1980	-	-	Pakistan	1973	13.8	1.3
Costa Rica	1950	4.6	0.1		1980	17.0	1.0
	1973	17.1	0.2	Peru	1961	33.8	0.7
	1980	-	-		1972	33.0	0.8
Ghana	1970	37.7	9.3	Philippines	1948	19.2	2.9
Indonesia	1963	70.1	25.7		1960	11.5	1.6
	1973	70.4	25.0		1971	13.6	1.9
India	1960	40.7	6.7	Syria	1971	14.3	0.8
	1971	50.6	9.1	Tanzania	1972	58.1	22.0
	1977	54.7	10.7	Turkey	1950	18.0	1.9
Jamaica	1950	19.1	-		1960	22.7	2.5
	1961	45.9	3.7		1970	23.4	3.5
	1970	56.3	6.5	Zaire	1970	41.5	11.6

Source: Compiled from FAO 1981a and available data from 1980 World Census of Agriculture.

Table 5.4

Distribution of Institutional Credits by Farm Size
(% of the total amount of credit)

Country	% of large farms		% of small farms	
	ha. more than	% of total	ha. less than	% of total
Brazil	100	86	20	1
Bolivia	100	94	20	6
Costa Rica	100	90	20	10
Nicaragua	100	90	20	10
Honduras	100	81	20	19
Ecuador	30	76	30	24
Peru	30	79	30	21
Malaysia	18	82	1.5	18
Pakistan	10	77	2.5	23
India	10	84	10	16

Source: Donald, 1976 - Table 4, p. 80.

Of the total number of landholdings in developing countries almost half - 48.1 percent - are smaller than one hectare. The proportion varies between countries (see Table 5.3): 54.6 percent in Bangladesh, 58.1 percent in Tanzania, 56 percent in Jamaica, 52 percent in Liberia, 70 percent in Indonesia, 33 percent in Peru and 54.7 percent in India. These small holdings cover between 0.1 percent (Brazil) and 25 percent (Indonesia) of the total farmland. The number of holdings below half a hectare have also increased over the period 1960-73. So as has the proportion of these small holdings to the total number of holdings, increased: from 23.2 to 33 percent in India, from 43.6 to 46 percent in Indonesia and from 18.1 to 22.5 percent in Peru.

This peasant sector is constrained by several factors. These include the subdivision of each holding into separate parcels - a practice most common in countries suffering from increasing scarcity of arable land combined with rapid population growth and strong land inheritance traditions. Available data shows that the average number of separate plots per holding is four in Egypt, five in Peru, six in Iran and four in Pakistan. In Turkey, 39.8 percent of holdings are fragmented into four to nine plots; in Peru 48 percent of the total number of holdings consist of four parcels and more. This fragmentation of holdings is seriously constraining production in the traditional peasant sector.

There are few studies available on the effects of the fragmentation of land into smaller and irregularly shaped plots, but some indications could be briefly mentioned. In Pakistan, for instance, plot boundaries and access roads, small irrigation canals and drainage systems took up one million acres of land - or about 10 percent of the area occupied by holdings of five hectares or less. Furthermore, since it tends to reduce labour efficiency and waste scarce irrigation water, the fragmentation of holdings hampers the introduction of proper water management and other development activities. In Jordan, a farm management development programme had to be limited to large holdings of regular shape, which meant the exclusion from development of smaller plots which constitute 21.8 percent of total holdings (FAO, 1984a).

The peasant farmers who survive on small and fragmented plots of land are at a gross disadvantage in the competition for production inputs. Whether the rural economy in which they live is centrally planned or market oriented, small farmers almost always have inadequate access to assets like institutions, credit and water for irrigation. In market oriented economies, small farmers' incomes are also limited by their weak bargaining position and often by the failure of governments to enforce national legislation in their favour. Data shown in Table 5.4

indicates that institutional credit focuses on the larger land holders. Only in the land reform areas of some countries do beneficiaries receive loans as an integral part of reform programmes. On the other hand, state farms in socialist countries and wealthier medium and large farmers in other economies have influence over government administration and institutions dealing with credit, supply of production inputs, cooperatives, irrigation, extension and marketing. This preemption of services by state farms and large farmers has occurred despite the fact that, as in agricultural censuses have revealed, the intensity of land use and productivity per unit of land are both much higher on small farms. Of course productivity per worker is much lower in the peasant sector because output is dependant on intensive use of family labour.

Trapped in their small holdings, the peasant farmers of the Third World have evolved various survival strategies. Many rent or sharecrop the land of absentee owners, even at low return, some diversify the production from their small holdings, ensuring food for their households and a surplus for sale, others migrate to urban areas or to neighbouring countries; still others try to form rural organizations hoping to receive additional means of production or a share in decision-making at village level, and many wait for state intervention to provide them with access to land and/or to lower rental values, or to involve them in a major agrarian reform programme.

The strength of the rural poor remains their labour power and skill in producing food. Both skills cost the economy little. The medium size and large-scale commercial farmers have a vested interest in controlling and keeping the peasant sector as a reservoir of cheap labour, cheap food and surplus rent to be received by non-agriculturalists (usually professionals, the military, government officials and merchants), who receive high income from rent as well as income from urban business and profession. Data from 24 developing countries give some indication of the extent of absent rent receivers. On average about 19 percent and 32.2 percent of the total land holders in Asia were engaged in non-agricultural occupations (FAO 1981a). This is why rent receivers pressure the state to continue existing agrarian systems and strongly oppose public land reforms. It also helps to explain why some peasants in certain countries - their survival strategies strained to the limits - have taken to armed opposition as a last resort to change the agrarian structure.

The impact of commercialization and technological change on agrarian structure and poverty

Tenancy is a common feature of non-socialist agrarian structures. Several factors have led to the increase in tenancy: the severely limited access to land, population pressure, and in some cases the increasing numbers of absentee landowners. Those in peasant societies with some form of access to land usually have higher social status, better opportunities for marriage and membership of local organizations, and more weight in dealing with government officials than hired agricultural workers. Evidence from numerous sources shows that owners often find it more profitable or sharecroppers work their land than to cultivate it themselves. Land prices and rental values are exorbitant.

Why is this situation accepted by all concerned? Tenants and sharecroppers are mostly illiterate so do not keep records of their farming business. They do not calculate the cost of their own labour or expect wages for their family members, who usually carry out all the farming operations. Neither do they take into account the cost of storing their products, or costs of employing their livestock, donkey or mules. Nor do they count the value of the manure provided by their livestock. The owners get monopoly profit and most of the small tenants get a poor residual. It is for this reason that socialist countries have abolished tenancy and sharecropping. (The apparent exception is China. However the recent change to the household responsibility system, involving the contracting of land to households, must not be misunderstood. The amount of land allocated to households for limited duration is still based largely on availability of labour so a measure of equity is preserved. The change is essentially a development of the communal tenure system, to provide incentive.)

One would perhaps expect that technological innovations which increase productivity, would strengthen the economic position of small farmers. In fact, scattered evidence from various regions indicates the emergence of an opposite trend. The introduction of new technology has further accentuated an already serious problem of increasing inequality in income distribution. A study based on a sample survey of 732 holdings of various sizes and tenures in the Punjab in India and Sind, in Pakistan, concluded that "value added per acre is higher on owner-operated than on tenant farms. This can be attributed to the use of more labour, fertilizer and animal power by owner-operators. The net income per acre of owner-operated holdings was 115 percent higher than that of the tenants". The study also found that landlords exact levies and claims from the sharecroppers -- ranging from 10 to 20 percent of the previously agreed tenant's share -- for

technology and irrigation (Khan, 1981). As more than 80 per cent of Pakistan's total tenant-operated area was sharecropped at the time, the implications of these findings for the perpetuation of poverty can be fully appreciated. Although there was a reduction in the area under sharecropping agreements during the 1970s, this may have been due to the reoccupation of rented areas by landlords as they discovered the profitability of "Green Revolution" technologies and began evicting sharecroppers. There are other reasons for the decline in sharecropping in other countries, such as fear of legislation giving land to the tiller and the decline in the average size of holdings and their fragmentation, due to inheritance.

This is not to underestimate the importance of new farming technologies and of attempts to modernize traditional subsistence agriculture. However it is also important to show how the institutional arrangements within agrarian structures restrict access to inputs, and how the commercialization of agriculture for export purposes affects the peasant sector. The result seen in many developing countries is the relative neglect of food crops - the main source of employment and household food supply for peasants.

To illustrate this process, let us examine briefly the experience of a few countries. The Ivory Coast is often praised for its so-called "economic miracle" - a high and sustained annual GNP growth rate of 7 to 8 per cent. Before the "boom", land in the south of the country was held under a communal tenure system, the main crops being yams, manioc, millet and sorghum, which provided two-thirds of their calorie supply. As the commercial export sector based on coffee and cocoa developed in the south, communal tenure rights were replaced by tenancy, sharecropping and labour contracts. Between 1950 and 1983, the area under export crops increased by 10 per cent a year, while the area under yam, manioc and millet increased by only 1 to 2 per cent a year (FAO, 1984e). This meant that despite a 2.25 per cent annual increase in the population of the south between 1950 and 1983, the area under food production fell from 61 percent to 40 percent of total farmland.

Thus the expansion of the export crop sector was at the expense of the traditional food crops and could only have reduced food availability for many of the area's rural poor. This poverty-perpetuating process is reflected in findings of the Ivory Coast's 1975 agricultural census. Only 15 per cent of all holdings grew food crops, while 85 percent grew coffee, palm oil and cocoa for export. The former averaged less than one hectare in size; the latter were mostly holdings of five to 25 hectares which constituted less than 40 percent of the total number of holdings but covered 70 percent of the land area. Since the introduction of cash cropping, income differentiation has increased substantially.

Incomes of farms of over 20 ha is almost 35 times more than that of farm smaller than 2 ha (Lee in Ghai and Radwan, 1983). Thanks to their foreign exchange earnings, the holders of 20 to 100 hectares claimed as much as 50 per cent of the supply of new technologies, such as sprayers, huskers and tractors. It is clear, given the land distribution and cropping pattern, that benefits from any growth in producer prices for export crops would be largely appropriated by the large farmers.

Nigeria, with the largest rural population of any country in Africa, has a long history of commercial agriculture and has made impressive economic growth over the period 1970 to 1982. Yet by 1980 some 38 per cent of the rural population still lived in rural poverty and illiteracy was 66 percent. How has Nigeria's agrarian structure impeded the "trickle-down" of the economic boom to the rural areas? Examining statistics for the period 1970-82, we find that throughout the country's oil export boom period, GDP from agriculture and per capita food production both declined at a rate of 0.6 percent a year. During the same period, the agricultural population increased annually by 1.6 percent. This means that average agricultural income also declined.

Meanwhile, the communal land tenure system gave way gradually to individual ownership, with land being purchased mainly by government officials, traders and money-lenders based in the cities. These, in turn, introduced tenancy and sharecropping. Commercialized farming of cocoa, oil palms, cotton and rubber, along with the use of tractors and heavily subsidized fertilizers, expanded rapidly in the southwest. According to an ILO study, traders and urban professionals controlled the biggest cocoa farms, received most of the subsidized loans available from the government and commercial banks and had easiest access to chemical sprays and extension services. The study concluded that the difference between the income share of the richest 10 per cent and the poorest 40 per cent of the population was 9:1. In the food growing areas of the Hausa region of northern Nigeria, the income differential among farmers is somewhat less. But there too we find a steady trend toward concentration of small holdings into fewer hands. The rich in the Hausa region are mainly large extended families who use their labour power to intensify production, then use the profits to buy land from poorer households. During the rainy season, ILO reported, the small holders were forced to borrow to buy grain; at harvest time they repaid double the loan in grain or offered their labour in exchange. The small farmers were not only losing their land, but continued to be disadvantaged in access to subsidized fertilizer, tractor-hiring services, and extension and technical support (Collier in Ghai and Radwan, 1983).

A recent FAO study on Nigerian small farmers concluded that small-holders in the states of Ondo, Ogun and Oyo could not benefit from technological inputs because of economic inequity and illiteracy (FAO, 1983f). Similarly, a field study of a large agricultural development project in northern Nigeria found that holders of less than one hectare did not adopt agro-technology for mixed crop cultivation. Only holders of seven hectares and above benefitted. Most of the small farmers acquired land by inheritance, earned more than half their gross household income from off-farm labouring, and were in debt (Balcer, 1982).

In Mexico, a country with a long history of agrarian reform and of commercial agriculture, peasants benefitted greatly from the large land redistribution programme begun in 1910 and intensified during the Cardenas period (1935-1941). But with the shift of emphasis in the 1950s to large-scale irrigated areas with increasing involvement of multinationals in capital intensive production, the rate of land redistribution has slowed considerably. By the mid-1970s, population was increasing at the rate of 3.3 per cent, employment in agriculture had declined and 84 percent of agricultural labourers worked less than 160 days per year. Small holders and the landless, together representing 53.3 percent of total Mexican agricultural households, constituted the bulk of the rural poor in 1975. More than half of all farms were peasant subsistence holdings, while the modern sector represented only 7 per cent of total holdings. Average per capita income in the subsistence sector was M\$ 489 compared with M\$ 10,000 - 20 times more, in the modern sector (Bergsman, 1980).

The introduction of more modern agriculture at methods has had a serious effect on the male/female division of labour, on the hours and productivity of women's farm work and on the form and level of rewards for their labour. Analysis of these complex issues is handicapped, by a general lack of data. Hardly any studies exist, for example, on women's labour inputs before and after intensification of agriculture. But issues arising from the introduction of cash cropping in the subsistence sector are well known. First, the production of cash crops represents competition for labour and land that women would otherwise use for production of food. A related issue is whether returns from cash cropping are used to satisfy household needs. Where women have strong economic authority (where separate land for food production is secure for example), no conflict may emerge. However, where there is a mix of cash crops requiring field work over a broad time schedule, women may be drawn into family or male, cash crop enterprises. An example of this competition between cash and food production is found in the Southern Volta region of Ghana. Before the introduction of cocoa, men were the main producers of the

staple food - yams - with women assisting during weeding and harvesting. When cocoa was introduced, food production was moved to less fertile land and women assumed major responsibility for it. With the men absent the women's workloads increased to the point where yam production gave way to cultivation of the less labour-intensive and less nutritious cassava root crop.

In Latin America, the rapid expansion of commercial farms has encouraged male migration from the subsistence sector and meant more seasonal work for women. In the Sao Paulo area of Brazil, the introduction of large-scale soybean production has reduced the former tenant households to a small permanent male labour force and a large, unskilled female casual labour force. In some areas of Mexico, where land concentration has forced the enlargement of extended families, young women are often simply expelled from the group and forced to seek wage employment in the towns. The intensification of food crop production in Asia, while bringing about substantial improvements in yields, has in many cases also reduced employment opportunities for women. In Java, the introduction of high yielding rice varieties in the late 1960s at first produced an increase in female employment. But during the 1970s, there has been a dramatic decline in total labour input of between 25 to 40 per cent, a drop which mainly affects the female labour force. Also in Indonesia, the replacement of hand weeding by mechanical weeders has reduced women's employment in harvesting, while in India the increasing use of herbicides is having similar effects.

Finally, discussion should turn to the agrarian structure typical of socialist, or centrally-planned, economies. In countries such as China, Cuba, Ethiopia, Mozambique and Democratic Yemen, state farms, cooperatives/collectives and household-operated units constitute, to varying degrees, the principal components of the agrarian structure. Under this new order, the state may have direct access to the surplus produced by the peasantry and can then manage it for the benefit of the entire society. Surpluses are used to feed urban populations or to provide raw materials for industry and export. This process of transformation is based on the assumption that social appropriation of investment in diversifying agriculture, combined with technology application, would be higher under a communal tenure system with state control than under the old tenure system.

Accordingly, the state farms receive a disproportionately higher share of the scarce resources, such as foreign exchange through imported machinery, and of credit supply and professionally trained technicians. In most cases this has occurred at the expense of the majority of the peasants who are responsible for the bulk of production.

Although state farms served as guarantors of crops for export, of raw material for domestic industry and grain production, the significance of these farms in terms of total production or marketed surplus is still limited. Family-operated holdings still constitute the major sector in terms of numbers of people and area of land, but are small and marginal for commercial purposes. It is perhaps for this reason that there has been a recent shift, seen in China, Tanzania and Mozambique, in favour of the family operated holdings. The aim is to move from subsistence to surplus production and accumulation, by increasing prices of most farm products and giving more responsibilities to peasant households.

In the various agrarian systems reviewed above, benefits from technological changes and commercialization are largely and disproportionately appropriated by the large holdings. This growth pattern has further accentuated an already serious problem of increasing inequality in income distribution. Furthermore, food crops cultivated mostly in areas of peasant agriculture have been neglected. This inverse relationship indicates how agrarian systems can generate both economic miracles and rural poverty at the same time.

Peasants' employment opportunities in rural areas

Employment in agriculture In considering peasants' access to employment in rural areas, it is necessary to distinguish first between landless agricultural workers and other categories of peasant farmers who have some kind of access to land but who also seek wage employment to supplement their incomes. The guiding assumption in this exploration is that the limited capacity of agriculture to provide productive employment on an adequate scale increases the dependence of a large proportion of peasants on agricultural wages for their livelihood.

While both landless workers and other small farmers have to compete for employment opportunities, these are more crucial for survival to the former than to the latter category. Discussion above of the process of land concentration in Latin America suggests that increased mechanization has led to low absorption of labour on large estates and kept wages low. Another factor which helps to reduce wages is the landowner's preference for workers from outside his area, who may be easier to discipline than local workers and who free him of traditional obligations to employ local villagers. In India, large and medium farmers are undermining the traditional wage system by refusing to pay "customary" wages and fringe benefits and, instead, importing "cash" labour from other regions.

Since wage labour forms a considerable part of the rural poor's income, wage changes in real terms have immediate bearing on their well-being. ILO data a real wages of agricultural workers, presented in Table 5.5, show a decline over the period 1970-80 in many countries. These data suggest that the value of wages was steadily eroded by continuing inflation. For example, the real wages of agricultural workers in Bangladesh declined by nearly a third between 1964-64 and 1981-82. During the same period the real wages of fishermen dropped by 20 percent. In the Philippines, the agricultural wage declined by nearly 30 percent between 1957 and 1974.

There are two main reasons why rural wage-earners have suffered more than their urban counterparts. First, they have rarely formed strong trade unions. Second, because they are often in debt to their employers, they have difficulty negotiating increases which match the inflation rate. It seems, however, that labourers who are paid in kind often come out better than those paid in cash. There is also a variation in wage rates among permanent and casual workers. For instance, in Pakistan, the wages of permanent agricultural workers went up by only 18 percent during 1952-75. However casual labourers' wages increased in real terms by 62 percent during the same period. This suggests that permanent workers are in some way bonded or in debt to their employers and therefore not able to negotiate more than marginal increases. However, it would be mistaken to conclude that casual wage-earners are better-off overall; permanent workers also enjoy fringe benefits or at least regular employment.

Agrarian reforms and organizations which strengthen agricultural workers' bargaining power help in providing higher wages. This was seen in the State of Kerala in India where real wage rates increased in the 1970s following unionization of the agricultural workers coupled with land reforms. The land reform measures increased the number of agricultural households with land by 57 percent and the number of landless agricultural households declined by 43 percent between 1964 and 1975, according to a Government of India inquiry into rural labour in 1975. As Table 5.5 shows, wages of agricultural workers increased in real terms between 1970-1980.

Non-farm employment In any agrarian structure and particularly in East Africa and in Asia, given the increase in the labour force in rural areas, rural non-farm employment is

Table 5.5

Changes in Real Wages of Agricultural Labourers
in selected countries 1960-1980

	1961/62	1965/66	1970/71	1974/75	1979/80
Bangladesh 1961/62=100	100	117	87	49	62
Burma 1970 =100	-	-	100	58	-
Cuba 1959 =100			108	135	148
Ghana 1962/63=100	76	75	77	65	-
India					
W. Bengal 1960/61=100	103	93	85	75	108
Kerala 1961/62=100	100	104	112	99	117
Ivory Coast 1960 =100	97	88	67	61	-
Kenya 1970 =100	-	-	100	87	-
Malawi 1970 =100	-	-	100	91	-
Pakistan 1965/66=100	-	-	119	137	-
Philippines 1970 =100	-	120	100	71	-
Uruguay 1970 =100	-	86	100	91	

Source: Khan and Lee, 1983 - Table 1.4; ILO data

Table 5.6

Growth Rates of Agricultural and Non-Agricultural Labour
Force in Rural Areas 1950-80

Regions	Percentage Growth in Agr. Labour Force	Percentage Growth in Rural Non-Agr. Labour Force	Rate Annual Growth Population	
	ANNUAL	ANNUAL	TOTAL	RURAL
Latin America	0.89	2.61	2.97	1.45
Central America				
Caribbean	0.86	4.02	2.50	1.82
Middle East &				
North Africa	1.03	1.26	2.75	1.55
West Africa	0.61	3.91	2.36	1.87
East Africa	1.59	4.62	2.51	2.20
South Asia	1.06	4.24	2.33	2.03
South East				
Asia	1.29	4.55	2.67	2.33

Source: Compiled from tables in ILO, 1983

a significant source of seasonal and permanent income for agricultural workers. A number of studies show that the proportion of income from non-farm activities is increasing. Table 5.6 reveals that the growth in the agricultural labour force lagged behind the growth in rural population in all regions, indicating that an increasingly large proportion of people found employment in the non-farm sector of rural areas.

What are these non-farm sources of employment in rural areas and are they sustainable? Unfortunately, most of the existing census and survey data do not provide the needed break down of what is known usually as "other" sources of employment. Village level studies in Egypt, Bangladesh, Pakistan and Sri Lanka indicate that these sources include rudimentary cottage industries (mostly for domestic use or the local market), petty trading, clearance of water streams and maintenance of roads. These activities require little skill or capital, suggesting that access to high-paying, non-farm jobs depends on a peasant's level of education, skill formation and capital. The landless and other categories of peasants perform these services for survival - as a last resort to improve their livelihood. The fact that these categories constitute the majority of the rural poor indicates that the accumulated income from diversified sources is still below minimum subsistence. It could be supposed that remittances from household members working in urban areas, drafted into military service and working outside the country are included in "non-agriculture sources" of households' annual income, although their amount and frequency change from year to year.

The discussion above is not meant to downplay the importance of non-farm activities. It indicates instead that this regime of low-return activities cannot be viewed as an alternative to the reform of land tenure.

Employment in communal systems Communal tenure systems (i.e. in "centrally planned" or "socialist" economies), as opposed to agrarian structures with private land ownership, aim to guarantee employment. The hiring of agricultural workers on individual holdings is eliminated, and landlessness non-existent. Agricultural activities on state farms and collective or cooperative large-scale operations are integrated with non-farm activities, such as raw materials processing and decentralized industries. These features are briefly shown here in general terms.

A key feature of these systems is the limited mobility of labour between institutions in the agrarian structure (between state farms, collectives or cooperatives and individually

operated holdings) and between rural and urban sectors. The amount of labour utilized, the type and intensity of work required, the mode of payment, the material and social incentive system and the level of remuneration are all determined by various production organizations under state control. Even on private plots allocated to households, labour absorption is very limited though productivity per labourer is higher than on state and collective or cooperative farms. Non-agricultural activities are essentially used for mobilizing surplus labour into productive work to ensure a high rate of capital accumulation, particularly during the agricultural slack season.

But while employment is guaranteed, work performance is questionable. There are problems in the moral and material incentive to work harder, and also in management, since decision making is centralized. The recent adjustments introduced since 1978 by China, after 30 years of accumulated experience in socialized agriculture, reflect concern over these problems. The means of production, (including land) are still communally owned and the ban on transactions of these retained, but the decision-making process has been decentralized to the household level. Land is contracted for use by households (for a certain period and then reallocated), thus giving them direct responsibility for production and use of labour on the contracted land as well as on their private parcels. It is a quasi-rental system with the rent calculated in terms of product rather than money. What are the effects of these changes on employment? There is growing evidence to suggest that there have been not only output gains but also a rise in labour productivity and release of surplus labour from collective agriculture.

The periodic reallocation of land between households to safeguard against possible claims of inheritance or proprietary rights has been followed in other socialized agricultural systems (for example, the Ethiopian "Weland" under peasant associations). Undoubtedly, this arrangement raises the question of disincentive to invest in more labour use on the part of the household.

Large-scale mechanized state farms have an important role in employment in farming as well as in processing and the industrialization of agriculture. Although they increased labour use in China (their functions included reclaiming new lands and production for agro-industry) they were not given much priority. By 1981 state farms occupied only 4.3 percent of total cultivated land and employed 4.8 million workers out of a agricultural labour force of 270 million. But Cuba and several African countries -- Algeria, Ethiopia, Somalia, Tanzania and Mozambique -- put their hopes for increases in employment and in export crops production largely in state farms. In Algeria for

instance, autogestion farms employed 76 percent of permanent agricultural workers in 1980 but held only 27 percent of total cultivated land. In Cuba, in 1983 75 percent of the total agricultural labour force was employed in state farms which constitute 85 percent of total agricultural land. The experience of these countries, as well as the current changes taking place in China, should be seen as transitional steps in the process of agrarian transformation.

Agrarian structures are strong determinants of the extent of poverty, employment and income distribution in rural areas. Peasants have access to land and water generally through inheritance and marriage. Land ownership concentration is still high in many countries. Technological changes combined with commercialization of farming have further accentuated an already serious problem of inequality of income distribution and led to the neglect of food crops - the main source of employment and food security for the peasants. Rural poverty has been perpetuated by serious inequality of income distribution, due not only to land distribution, but also to a decline in real agricultural wages, have perpetuated rural poverty. This type of agrarian system, characterized by disproportionate investment of scarce resources, has caught peasants in the poverty trap. Whether in socialist regimes or private ownership-based agrarian systems, non-farm activities gradually reduce peasants' degree of dependence on limited employment opportunities in agriculture. But these supplementary employment opportunities should not be an alternative to agrarian reforms.

Chapter Six

ECONOMIC INSTABILITY: THE IMPACT OF WORLD ECONOMIC RECESSION

Continuing poverty in the rural areas of developing countries cannot be blamed simply on inequitable agrarian systems, population growth and inappropriate domestic development strategies. Any analysis of the causes of rural poverty must also take into account the impact of two world economic recessions - in 1974-75 and 1980-83 - on these countries' economies and in particular, on their rural development.

World recession and developing economies

Dramatic changes have taken place in the world economy over the past 15 years. The early 1970s saw major changes in the world monetary system, increases in prices of agricultural products and raw materials and acceleration of the inflation rate. A sharp oil price increase in 1973 provoked a marked slow-down in economic growth rates. The impact on Africa was especially severe. In 1979 a further 250 per cent increase in oil prices plunged much of the world into even more serious economic difficulties. The effect of these two recessions on the industrialized OECD countries has been severe enough: their average growth rate tumbled from 6.1 per cent in 1973 to as low as -0.5 per cent in 1982, before recovering to 2.3 per cent in 1983 and 4.9 percent in 1984. Real interest rates in particular were pushed to historically high levels and were one of the factors which made the post-1979 recession the most severe since the 1930s. In developing countries, and especially those of Africa and Latin America, the recession has been more serious with regional variations. Between 1979 and 1983 the growth rate in the developing world averaged only 2 per cent a year, roughly equal to the growth in population implying that there was virtually no increase in per capita GDP in the developing countries in that period. Per capita GDP actually fell in 1982 for the first time since World War II and the decline was even greater in 1983. In 1984 growth resumed, but at a rather low level and with wide regional variations.

These worldwide recessions have highlighted the economic instability and the interdependence of developing and developed economies. In 1982, the developing world accounted for 27 per cent of total exports from the OECD countries and for about 40

per cent of exports from the United States. However the volume of OECD member countries' imports from the developing world depends on the rise and fall in their GNP.

According to a recent study, a one percent decline in the GNP rate of growth of OECD members is associated - on average - with a 1.5 percent decline in the rate of growth of GNP in developing countries. This means a multiplier ratio of 1:1.5. Considering the size and growth rate of population in developing countries (about 2.5 to three percent per year as compared to 0.8 percent in OECD countries), the amplification of the multiplier ratio becomes even greater. The same study estimated that a decline of from two to three percent of GNP in a developing country would result in at least a 10 to 15 percent decline in the incomes of the poorest population groups (Jolly and Cornia, 1984). It is true that in the short term, developing markets can occasionally grow rapidly and even independently of general world conditions. However, over a longer period, their imports are constrained by their export earnings, which in turn are determined largely by the growth in the value of primary commodity imports by OECD countries. For this and other reasons, under the present international trading and financial system, economic growth in the OECD countries effectively determines the growth prospects of most developing countries.

The slowdown in OECD economic activity has affected development in the Third World in four specific ways. It has created a reduction in the demand for the developing countries' primary agricultural exports in volume and in prices, which have been very unstable. It has led to an increase in the real burden of interest rate and debt service payments. Because of loss of export earnings and higher import prices for oil many developing countries have severe balance-of-payments problems which have forced them to adopt restrictive adjustment programmes in order to cope with the crisis. It has also led to a reduction in the growth rate of external assistance from developed countries.

Reduction in demand for primary agricultural products has had adverse consequences for developing countries' terms-of-trade. Prices (in real terms) of food and agricultural raw material fell during the period 1980-82 by 23 per cent and 18 per cent respectively. As a result, the value of agricultural exports of developing countries has declined sharply since 1980. Net barter terms-of-trade for the agricultural exports 1/ of

1/ i.e. unit values of agricultural exports divided by the unit values of manufactured goods and crude petroleum.

developing market economies fell by 12 per cent in 1981 and by a further six per cent in 1982. Although there was a slight improvement in prices in 1983 and 1984, they remain low. Hardest hit by this decline, and by the rise of trade barriers, have been those developing countries heavily dependent on one or a few specific products for a large share of their foreign exchange earnings. Conditions in the international marketplace for these products have had major implications for these countries' domestic economies. Even where world market developments do not fully affect rural incomes in the short-term (as when governments shield producers against price changes), these developments are ultimately reflected in declining production, incomes, levels of employment and living standards in rural areas.

Deterioration in the developing countries' terms-of-trade during the economic recession is by no means a new phenomenon. It represents, instead, the worsening of a longer-term trend in agricultural prices. FAO analysis of trends in real prices for 15 major agricultural commodities found that prices for all of them were lower in 1981 than in 1960. There were marked declines (of 60 per cent or more) in prices for tea, jute and rubber, while real prices for other basic export commodities like cocoa, bananas, wheat, maize, beef, soybeans, palm oil, cotton and sisal were 20 to 40 per cent lower. Moreover, 12 of the 15 commodities studied experienced substantial annual declines, averaging more than 3 per cent for tea, jute and rubber. The price of sugar, one of the most important agricultural exports of developing countries, has been highly volatile, reaching 40 cents (US) a pound in 1980 and only 4 cents by 1985, the lowest level (in real terms) this century (FAO, 1983g). At the same time, there have been strong fluctuations in market supply conditions, with temporarily high prices for some commodities even during global economic recession.

Recent developments in North-South trade have aggravated the economic position of Third World countries. This is well-illustrated by country examples. Brazil's net barter terms-of-trade, in sharp decline since the mid-seventies, slipped by 15 per cent between 1980 and 1981, with a further slight fall in 1982. The unit value of Brazil's agricultural exports dropped by 12 percent in 1982 as the prices of major agricultural export commodities, such as coffee, sugar, soybeans, cocoa and beef all fell, in some cases substantially. In Colombia, the net barter terms-of-trade declined by 13 percent in 1981, mainly as a result of the fall in the price of coffee, which represents about one half of total merchandise exports. This, combined with other factors, led to a large deficit in Colombia's trade balance for the first time in seven years. The loss in Kenya's terms-of-trade between 1972 and 1980 has been estimated at

10 percent of 1972 GDP, with a further deterioration in 1981. In Bangladesh, the deterioration has been even more pronounced. After a decline of 38.7 percent in terms-of-trade during the 1973-75 recession, the country registered a further 35.6 per cent drop in 1980-82, due to a fall of 11 per cent in prices for its jute exports (Sobhan, 1982).

The increase in the burden of interest rate and debt service payments in developing countries can be blamed partly on the fall in these countries' export earnings and their declining terms-of-trade, and partly on a huge increase in interest rates originating in OECD countries. The enormity of Latin America's external public debt is well known. But the real debt burden now saddling other developing countries is often underestimated. This is because, when stated in absolute terms, they may appear small compared to Latin America's debt. For example, in 1981-82, Egypt's external public debt was \$15 billion, the Republic of Korea's \$20 billion, Turkey's \$16 billion, Pakistan's \$9 billion and Morocco's \$9 billion. However, when these figures are stated as a percentage of Gross National Products, a different picture emerges: while Latin America's overall external debt was 36 per cent of GNP, Morocco's and Egypt's were larger (61 and 43.7 per cent respectively) and that of Central American countries was very high at 71 per cent.

External debt has become so onerous and resulting balance of payments difficulties so binding that some developing countries have had to curtail imports not only of consumer goods, but also of essentials needed to maintain normal levels of domestic production, such as industrial raw materials and spare parts. In countries like Tanzania, Mexico or Brazil, these cuts have led to a reduction in the use of industrial capacity and a sharp decline in industrial production. For example, the dollar value of Mexico's imports fell almost 40 percent between the first quarter of 1982 and the first quarter of 1983 (World Bank 1984a), while in Tanzania it is estimated that the present volume of imports is 25 percent below 1970 levels.

Reduced industrial production has adverse effects on other sectors of the economy. The lack of foreign and domestic goods (such as fertilizers, insecticides, irrigation equipment, tractors) for farmers handicaps agricultural production. Imbalances in agriculture and industrial production in turn generate inflation and disequilibrium in government finances. Since sales and excise taxes on industrial production along with import duties are a major source of government revenue in developing countries, the balance of payments constraint is directly and indirectly responsible for the enormous increases in budget deficits or public sector borrowing requirements which

these countries are experiencing. Again taking the Tanzanian example, it has been estimated that if industry was operating at a normal level of capacity utilization, sales and excise tax revenues would be doubled, enough not only to eliminate the current fiscal deficit, but also to make a sizeable contribution to the capital account (ILO/JASPA, 1982b).

As for interest rates, recent World Bank data show that real interest rates (deflated by the developing countries' export price index) increased from a trough of -30 percent in 1974 to a peak of +20 percent in 1981, an incredible jump of 50 percentage points over a short period (World Bank, 1983a - figure 2.3). The recent level of real interest rates is, without doubt, one of the highest this century.

The large external payments deficit experienced by many developing countries is not just a short-term liquidity problem -- a current account deficit, even a persistent one, need not necessarily be a cause of concern -- but represents a fundamental long-term structural imbalance from which flow all the other imbalances manifested by their economies, such as inflation, huge budget deficits and enormous under-utilization of productive capacity. This imbalance is reflected in the fact that the existing production systems in these countries are unable to generate sufficient exports to pay for required imports at a socially-desired rate of economic growth and at a normal sustainable level of current account deficit. Correction of this imbalance will certainly take longer than the two to three year "time horizon" which developing countries are permitted under typical IMF adjustment programmes.

IMF-supported adjustment measures have been accepted and implemented by many developing countries seeking to cope with the imbalance described above. In the short term, these packages usually call for heavy devaluation of domestic currency, cuts in consumer subsidies (including food) and social expenditures, an increase in interest rates to stimulate domestic savings, and a reduction in money supply. These measures are supplemented in the short to medium term by action to change the developing economies' "inefficient" structure -- for example, by favouring production of export crops over that of food or manufactured goods or by the allocation of resources according to market forces rather than directly by government.

The effects of these adjustment measures on income distribution and particularly on rural poverty are questionable. It is argued that in a typical commodity-exporting, developing country, a switch from non-trading sectors to exports provides incentives to agriculture at the expense of urban industry. Since

urban incomes and living standards are higher than those in rural areas, this reallocation of resources must lead to greater equity and less rural poverty.

To analyse this assertion, attention must be paid to the impact of adjustment measures on food availability, wages, food subsidies and public expenditure (education, health, rural roads, social security, etc.) in various countries. In many cases, adjustment measures have had two extremely important short-term effects on the economy: cuts in overall consumption and real wages, and a redistribution of income away from those producing for the domestic market to those producing for export or import substitution. Rural areas do not produce only for export. Rural people also grow food for subsistence and other products not meant for trading; the exporting sector is often a minor employer considering the total size of the agricultural economy. Therefore, whether or not devaluation will improve income distribution in a developing country exporting agricultural products depends heavily on the nature of existing rural income distribution and the structure of the economy. There are many studies in India which show that inflation alone is a major deciding factor in rural poverty because it reduces the purchasing power of the wages of the rural landless. Another serious consequence of devaluation and cuts in food subsidies has been political instability, including riots. These distributional consequences may be compounded by other adjustment measures, particularly cuts in food subsidies and government social spending.

The reduction in external assistance and food aid from developed to developing countries is another effect of the recent economic recession since 1980. External resources, both private and official, have accounted for only 15 to 20 percent of many developing countries' total investment in the last two decades, but they play an important catalytic role in resource mobilization for investment. In examining the trend in external resource flows to agriculture over the period 1974-1983, we must recognize certain limitations.^{1/} First, there is little reliable information on external private lending and direct foreign investment in agriculture in developing countries from the USSR and East European socialist countries. So the data on bilateral and multilateral assistance presented here are from members of

^{1/} Agriculture covers activities directly related to agricultural production, forestry, manufacturing of inputs, agro-industries, rural infrastructure, regional development and rural development.

the Development Assistance Committee (DAC). They represent "commitments", not actual transfers, and do not include food aid, which is discussed later.

External aid commitments to agriculture appears to have increased, in absolute terms, between 1974 and 1981. During the same period, the world's main donor groups increased the proportion of agricultural commitments destined for the poorer countries of Africa from 21 per cent to 28 percent. Nevertheless, the average annual growth rate (in real terms at 1975 prices) of external assistance to agriculture has slowed down since 1979. The growth rate of multilateral, concessional commitments by the World Bank, Regional Banks, IFAD, OPEC and others, declined from an average of 10.4 per cent in the years 1974/75 - 1979/80 to only 2.4 percent during the period 1979/80 - 1981/82. Between 1982 and 1983, commitments of multilateral concessional assistance to agriculture fell in real terms by five percent, from US\$3.5 billion to about \$3.4 billion, a decline especially severe for IFAD, which directs its resources to the rural poor. Similarly, there was a decline in total resources for technical assistance to agriculture (at 1980 prices) from \$1.19 billion to \$1.14 billion, while assistance provided by the UN Development Programme (UNDP) alone declined from \$204 million in 1980 to about \$160 million in 1982. Significantly, the share of agriculture, health, education and social services in total technical assistance has declined since 1979. On the other hand, the period 1980 to 1983 saw a steady increase in non-concessional commitments of 50 per cent, meaning that the terms of multilateral aid have significantly hardened. Whether aid is concessional or non-concessional, there is bound to be a gap in time between its commitment or pledging and its actual disbursement, and a further lag between the receipt of the aid and delivery to the rural poor. It is encouraging to see that allocations to rural development and rural infrastructure by donors has increased from 17 to 21 percent of total agricultural commitments during the period 1974-81 (FAO 1984f). Some donor countries and financial institutions -- notably the Nordic countries, Italy and IFAD -- give preference to rural development projects with an anti-poverty orientation. However, whether or not external assistance is directed toward rural development often depends as much on the development priorities of recipient countries as the intentions of donors.

A comprehensive study of Bangladesh's experience helps us understand how changes in the flow of external assistance have affected countries heavily dependent on this aid. Since 1972, external assistance (including food aid) to Bangladesh - from OECD and OPEC countries, international agencies, the USSR and East European Socialist countries, has been massive, accounting

Table 6.1

Commitments of External Assistance 1/
to Agriculture in Selected Countries 1978-83

Country	Per Capita Agricultural Population - Current US\$					
	1978	1979	1980	1981	1982	1983
AFRICA						
Congo	13.10	4.80	44.90	8.30	36.60	64.40
Ethiopia	1.50	1.00	1.30	3.10	2.30	5.30
Kenya	17.90	11.90	11.80	8.80	13.90	9.40
Nigeria	0.80	2.20	1.60	9.70	0.00	9.20
Senegal	10.10	8.00	17.50	38.50	51.10	31.00
Tanzania	8.50	19.80	9.50	15.30	13.30	4.60
Zaire	2.00	1.50	3.90	3.10	2.30	2.50
ASIA						
Bangladesh	0.40	-	0.60	1.50	9.10	2.80
China	-	-	-	0.10	0.30	0.20
India	1.80	2.20	2.90	3.00	3.30	1.70
Indonesia	6.10	10.20	10.50	6.60	8.90	8.90
Pakistan	7.70	7.00	3.80	5.10	6.10	8.70
Philippines	28.20	7.60	17.80	10.60	19.60	7.80
Sri Lanka	14.00	18.90	26.20	39.30	24.40	20.30
LATIN AMERICA						
Brazil	4.90	7.50	8.20	8.80	7.60	24.90
Colombia	1.20	3.30	7.80	14.80	32.80	12.00
Costa Rica	6.90	9.80	108.40	3.00	98.70	68.80
Ecuador	14.90	12.10	64.70	22.80	15.70	12.30
Mexico	16.00	11.20	24.00	29.20	18.30	4.70
Peru	5.40	16.60	29.60	22.90	26.20	37.10
NEAR EAST						
Egypt	3.00	1.10	15.70	11.60	6.70	7.50
Morocco	15.80	29.60	6.00	5.00	23.90	14.30
Somalia	8.50	11.20	29.70	21.20	7.90	6.70
Syria	19.60	19.40	12.50	0.00	11.60	0.00
Tunisia	81.87	42.80	100.00	73.90	46.00	66.56
Turkey	7.10	5.00	2.30	6.20	4.20	7.80
Yemen A.R.	3.20	18.30	24.40	5.00	8.90	14.25

Source: FAO Data Bank.

1/ Excluding technical assistance grants.

for about 10 per cent of the country's Gross Domestic Product and financing its entire development budget. But in absolute and real terms, external assistance has fallen steadily since the first oil price increases of 1973. At 1973 prices, aid dropped from \$551.5 million in 1973 to \$502.1 million two years later. By 1981, following further oil price rises, it fell to \$479 million. In per capita terms, the decline was greater - from \$6.60 in 1973 to \$5 in 1981. Over the same period there was a strong decline in the proportion of external assistance from the USSR and other socialist countries (from 20 per cent of total aid in 1974-75 to just five per cent in 1980-82) and a similar trend in assistance from OECD and OPEC for agriculture and rural development. This overall deterioration in external assistance flows has assumed critical proportions for an aid-dependent country like Bangladesh, whose agricultural sector produces around 50 per cent of GNP and whose rural poor make up 65 per cent of the total population (Sobhan 1982).

With per caput food production in developing countries having increased by an average of only 0.2 per cent a year during the period 1960-84 - and having actually declined in sub-Saharan Africa by as much as 1.4 per cent a year - food aid has emerged as an important form of external assistance. The brunt of the decline in food availability and the burden of price rises, aggravated by variability in cereal export prices, are almost inevitably borne by the poor, who spend 60 to 80 per cent of their income on food. In this situation of course, it is necessary to safeguard against the use of food aid as a political weapon. So its partial internationalization and use on a continued and systemic basis, through the UN/FAO World Food Programme, has been a major advance. WFP which has been operational since 1983, uses most of its food aid as a "tool for development", distributing it to the rural poor as part payment for work on agricultural and rural development projects.

However, the level of food aid in cereals to developing countries has noticeably declined since 1970/71, when it averaged 12.3 million tonnes a year. By 1975-77, food aid shipments had fallen to 8.3 million tonnes a year. After a period of stagnation, food aid in cereals rose again in 1983-84 to 9.8 million tonnes and the 10 million ton annual target set by the 1974 World Food Conference was exceeded in 1984/85 when food aid in cereals reached 12.5 million tons, mainly to meet emergency needs in famine-stricken African countries.

Table 6.2

Food Aid (Total Cereals) per Selected Recipient Countries
and per Head of Total Population

Country	cereals per head 1971/72 74/75 82/83 kilograms			Country	cereals per head 72/73 74/75 82/83 kilograms		
	AFRICA	NEAR EAST	LATIN AMERICA				
Congo	1.3	1.5	5.3	Egypt	6.1	16.6	40.3
Ethiopia	1.0	1.9	10.2	Morocco	27.7	4.3	6.3
Kenya	0.1	0.2	8.9	Somalia	3.7	35.6	35.6
Senegal	9.0	5.4	14.8	Syria	5.9	6.3	2.7
Tanzania	0.4	9.6	8.7	Tunisia	39.8	10.6	22.5
Zaire	2.1	0.04	3.6	Turkey	3.1	0.4	-
				Yemen	7.8	6.3	4.5
ASIA							
Bangladesh	7.6	27.1	13.1	Brazil	0.7	0.3	-
China	0.05	-	0.04	Colombia	7.1	1.2	0.04
India	3.2	2.6	0.4	Ecuador	7.2	1.8	0.9
Indonesia	8.2	2.2	1.0	Peru	1.8	2.4	5.8
Pakistan	16.8	7.8	3.9				
Philippines	10.5	2.1	0.9				
Sri Lanka	29.4	19.9	23.4				

Source: Calculated from FAO 1985c, using population figures in FAO 1974 and 1984e.

Table 6.3

External Aid in Selected Countries by Income and Poverty Levels

Country	External Aid		Selected Development Indicators		
	External Assistance to Agriculture Per Cap. Agr. Pop.	Food Aid Per Capita Cereals/Kg. 1982/1983	GNP Per Capita Tot. Pop. 1982/1983	Income US\$ 1982	Percentage of Rural Pop. in Absolute Poverty Around 1977-1982
	US\$ 1982				
Bangladesh	9.10	13.1	140	80	
Brazil	7.60	-	2,240	73	
Congo	36.60	5.3	1,180	-	
Colombia	32.80	0.04	1,460	67	
Costa Rica	98.70	81.9	1,430	34	
Egypt	6.70	40.3	690	25	
India	3.30	0.4	260	50.7	
Indonesia	8.90	1.0	580	44	
Kenya	13.90	8.9	390	50	
Pakistan	6.10	3.9	380	39	
Philippines	19.60	0.9	820	41	
Somalia	7.90	35.6	290	60	
Senegal	51.10	14.8	490	-	
Sri Lanka	24.40	23.4	320	26	
Tanzania	13.30	8.7	280	60	
Turkey	4.20	-	1,370	-	
Zaire	2.30	3.6	190	80	

Source: FAO, 1984f, 1985c; World Bank, 1984b
Various Country Tables and FAO Poverty Studies.

For low-income food-deficit countries 1/, food aid provides important budgetary support. Their food aid receipts have accounted for 15 to 23 per cent of their total cereal imports during the early 1980s and in some sub-Saharan African countries the share is even larger. Fluctuations in the flow of food aid may therefore have serious repercussions for the poor, particularly fluctuations which reflect international supply and market conditions. Often, however, constraints within the recipient country are also responsible. Shortage of storage facilities, low levels of stocks, poor transportation, and inadequate administration hamper the smooth flow of food supplies.

External aid is not always provided solely on the basis of need. According to the data shown in Table 6.3, some middle-income countries with a low incidence of rural poverty received much more external aid per capita than low-income countries with massive poverty, such as Bangladesh and Tanzania.

Impact of recession on income distribution and poverty

Although the relationship between the prolonged world economic crisis and deteriorating economic conditions in developing countries has generated a great deal of interest within the international community, very little has been written about the impact of recession on income distribution, employment, real wages and food consumption in the Third World. Even less has been devoted to its impact on rural areas, and particularly on the rural poor. Researchers face formidable methodological problems. First, the causes are complex, since the structural characteristics of each developing country's economy determines the degree of its vulnerability to external market factors. A second variable is the size of export-oriented and food subsistence sub-sectors in the rural economy, as well as the percentage of the landless workers who are net buyers of food and depend on the level of wages. Third, data on income distribution and rural and urban poverty are produced with a considerable time lag. Finally, it is not easy to distinguish between the effects of world economic recession on rural living standards and those produced by the different types of adjustment measures which governments are forced to adopt in response to the crisis.

1/ i.e. developing countries with per caput income below the level used by the World Bank to determine eligibility for IDA assistance i.e. US\$790 in 1984, and which are given priority in food aid.

At a practical level, available data in developing countries does not provide for reliable assessment of the separate effects of inflation (due to, say, devaluation) and cuts in food subsidies on the level and pattern of consumption of landless labour. There are also serious problems in studying the effects of devaluation and consequent changes in relative prices on income distribution within the rural economy (between producers of export crops and subsistence food producers). It is equally difficult with the data available to assess the impact of cuts in government expenditure (in response to increasing budget deficits and lack of foreign exchange) on education, health, nutritional status and drinking water supply in rural areas.

Table 6.4

Per capita income and consumption in rural areas in China, 1978-82

	1978	1982	Percentage increase
Income per head (yuan)	133.57	270.11	102.2
of which,			
distributed collective income	89.53	140.12	56.5
household private income	35.79	102.80	187.2
other incomel/	9.25	27.19	193.9
Living space per head (sq. metres)	10.17	13.41	31.9
Consumption per head (jin ² /)			
wheat and rice	245	384	56.7
cooking oil	3.94	6.86	74.1
meat	11.51	18.10	57.3
poultry	0.50	1.56	212.0
eggs	1.59	2.85	79.2
fish	1.68	2.63	56.5
synthetic cloth (chi ³ /)	1.24	4.59	270.2

Source: People's Republic of China, 1983

Notes 1/ Other income includes government transfer payments, remittances and wages earned in state enterprises in urban areas.

2/ 1 jin = 0.5 kg.

3/ 3 chi = 1 metre.

Despite these data limitations, it is useful to review the recent economic performance of six countries, paying particular attention to their structural characteristics and to the ways in which they have adjusted to economic recession. In some cases, the effects of adjustment measures on food availability and social expenditure are also explored.

The evidence indicates that China and India, two of the world's poorest and most populous countries, have sustained the tempo of their economic growth in the 1980s despite the international economic crisis and the decline in the world rate of growth. The main reason is that both countries have domestic development strategies stressing self-reliance based on import-substitution, inward-looking industrial expansion, and high rates of domestic savings to finance most national development programmes. Their economic structures are simply less vulnerable to changes in the world economy. In India, the effect of recession on terms-of-trade, exports and interest rates were kept to a minimum during the period 1980-83, while domestic savings amounted to as much as 20.3 and 22.7 percent of GDP in 1980 and 1983 respectively. Since exports account for a small percentage of GNP, the Indian economy is largely insulated from the economic shockwaves that have battered many other developing countries since 1979. This does not mean that India's rural poor are doing better than before the recession; but they are not doing any worse.

In China, the rural poor are reportedly doing considerably better now than before the recession. This is a significant achievement when one considers that a recent study showed that over the period 1970-81 the country's GDP grew at an average yearly rate of 5.5 per cent and agricultural GDP at the rate of 2.8 per cent, while food production per head increased by a total of 16 per cent. According to the study, these recent institutional reforms have led to progress across a very broad front. Agricultural production has risen substantially, with the value of gross agricultural output increasing by 33.4 per cent in constant price terms (or 8 per cent a year) between 1978 and 1981. There has been considerable diversification in the composition of farm output and a significant increase, in per capita terms, in all agricultural sectors -- particularly in oil-bearing crops (115.9 per cent), cotton (57.6 per cent) and meat products (49.7 per cent). While agricultural production and producer prices have increased, prices for industrial goods in China's rural areas have remained fairly constant. This has meant a dramatic rise in the index of agricultural terms of trade, at the unprecedented rate of 10.8 per cent a year after 1978. Government statistics indicate that income per head in

Table 6.5

Tanzanian central government expenditure (recurrent plus development) by purposes

	<u>Ts. million</u>					
	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
A. Basic Needs Sectors						
Education	1,324.0	1,472.5	1,612.8	1,737.7	2,440.4	2,524.0
Health	669.2	688.0	720.6	791.7	981.0	1,019.8
Social Security and welfare services	24.0	37.0	52.0	44.4	50.7	62.2
Housing and community amenities (including housing, community development and sanitary services)	88.7	107.7	145.3	183.3	187.3	209.6
Other community and social services	173.5	240.0	276.6	312.7	332.0	366.0
Water supply and electricity	459.5	772.6	639.0	535.4	1,027.4	880.3
Sub-Total	2,738.9	3,317.8	3,446.3	3,605.2	5,018.8	5,061.9
Percent annual increase over the previous year	21	4	5	39	0.8	
Other sectors (general public services, defence, economic services, public debt and others)	<u>6,699.7</u>	<u>10,445.0</u>	<u>8,986.6</u>	<u>10,608.3</u>	<u>13,978.7</u>	<u>13,903.7</u>
Total govt. recurrent and dev. expenditure	<u>9,438.6</u>	<u>13,762.8</u>	<u>12,432.9</u>	<u>14,213.5</u>	<u>18,997.5</u>	<u>18,965.6</u>
Percent of basic needs sectors to total expenditure	<u>29.0</u>	<u>24.1</u>	<u>27.7</u>	<u>25.4</u>	<u>26.4</u>	<u>26.6</u>

Source: United Republic of Tanzania, 1984

rural areas increased by more than 100 per cent between 1978 and 1982, while food consumption per head also increased notably (consumption of poultry by 212 per cent, for example). Additional income has been spent not only on food but on housing and cloth (see Table 6.4). Improving living standards have meant a sharp fall in the incidence of rural poverty. Official statistics show that in 1982 only 72 of China's counties were classified as "chronically poor", compared with 221 in 1978. Since urban incomes have risen far more slowly than incomes in the countryside, there has also been a pronounced reduction in rural-urban inequality (Griffin, 1984). (An analysis of rural development in India and China is provided in Technical Appendix II).

In contrast, Brazil -- also a large and populous country, with per capita income much higher than that of China or India -- has suffered badly during the recession. This is chiefly because its development strategy has tied the economy to international market forces. Exports make up 10 per cent of GNP and domestic savings are 17-18 percent of GDP. Economic growth stopped altogether in 1980 following the second oil shock and the rise in world interest rates discussed earlier. As the recession deepened, Brazil's GNP growth rates deteriorated sharply, from 6.3 percent in 1979 to -3.5 percent in 1983, while its balance of payment deficits increased from \$4 billion in 1978 to \$16 billion in 1982. In response, the Government adopted adjustment policies emphasizing deep cuts in public expenditure on public housing and social security, and on education. There is evidence that despite poverty trends in the 1970s, marked negative trends in Brazil's rural living standards and income distribution have worsened since 1980 (Hoffman, 1984). Despite remarkable progress in the North East, the poorest region in Brazil, real wages there average less than half of those in the Southeast, a gap that has persisted for 40 years. Due to structural imbalances in land ownership and restrictive credit policies, a recent Government adjustment policy aimed at promoting export crops has encouraged the replacement of more labour-intensive traditional crops and has contributed to increased inequality in income distribution within agriculture in every region (Denslow and Tyler, 1983). To cope with the economic crisis, the Government has been forced since 1980 to cut public spending, which will likely have adverse effects on the welfare of the rural poor.

Tanzania is an example of a low income African country with a development strategy stressing equity and participation. At the onset of the economic recession, Tanzania's balance of payments deteriorated, its deficit increasing from \$36 million to \$268 million between 1970 and 1982, while the cost of debt-servicing increased by 20 percent during the same period. Consequently its GDP shrank by 1.7 percent in 1981 and by a

further 3.2 percent in 1982 (this contraction stopped in 1983). To cope with the impact of the world economic crisis, the government adopted a structural adjustment programme in 1982 which called for cuts in development expenditure and a slow-down in recurrent expenditure, while maintaining expenditure on basic needs (education, health, social security, housing, safe drinking water). In fact, Table 6.5 shows how basic needs spending declined slightly from 27.7 to 26.6 percent during 1979/80-1982/83 as percentage of total public expenditure. Tanzania's rural/urban income disparity has been reduced to only 5 percent between 1970-1983, largely due to the dependence of a large part of farm income on subsistence consumption which remained immune from inflation (Singh 1984). It is not known how income distribution within the rural areas has changed as a consequence of recent Government measures to raise the procurement price for export crops relative to that of food crops. Although the government remains committed to its "basic needs" strategy for rural development, it cannot meet such needs indefinitely without continued external assistance.

Until recently, Sri Lanka was a small, inward-oriented and state-regulated economy with a traditionally strong commitment to the meeting of "basic needs". However, in response to slow economic growth in the 1970s, a new government decided in 1977 to introduce adjustment measures, including currency devaluation, liberalization of imports, removal of price controls and large cuts in food subsidies and social expenditure. Since then, the growth rate of Sri Lanka's GDP has noticeably improved. However, available evidence indicates that during the same period the impact of liberalization on income distribution and social welfare has been retrogressive. Between 1977 and 1983, the share of government spending allocated to food and kerosene subsidies fell from 23 per cent to less than eight percent; the allocation for social services dropped from 23 per cent to 17 per cent.

As for income distribution, surveys show that the share of the bottom 20 per cent of the population fell from 7.17 per cent to 5.73 per cent between 1973 and 1979 (see Table 6.6). It has been reliably estimated that real wages rose slightly -- by 4 per cent -- between 1977 and 1979 but between 1979 and 1983 declined among the lower income groups, by 7 per cent among workers in the rice and construction sectors, and by 27 per cent among plantation workers. Further, data indicates that per capita food consumption was less in every year between 1978 and 1982 than it was in 1977. Until the abolition of the food subsidy scheme in 1979 and its replacement by the food stamp scheme, all low income groups were entitled to basic food rations either free or at subsidized rates. The present food stamp scheme, under which cashable coupons are provided to households receiving less than Rs. 300 per month, is essentially an income support scheme for

Table 6.6

Sri Lanka: Percentage Income Distribution of Total Income 1973-1981

Decile (cumulative share)	Survey of Consumer Finances 1973	Survey of Consumer Finances 1978-79	Labour Force and Socio-economic Survey 1980-81
Lowest decile	2.79	2.12	2.0
First two deciles	7.17	5.73	6.6
First three deciles	12.77	10.38	12.3
First four deciles	19.29	16.06	19.0
First five deciles	26.74	22.65	26.7

Source: Reproduced from Jolly and Cornia, 1984, p. 145.

Note: Based on Spending Units, i.e. a group that does its cooking and major expenditure as a group regardless of occupying a part of a house).

Table 6.7

Bangladesh: Trends in External Dependence

	1959/60	1969/70	1973/74	1979/80	1980/81	1981/82
1. Food import as % of food availability	5.9	12.7	13.0	19.7	7.8	8.7
2. Domestic savings as % of GDP	7.6	7.2	1.5	2.1	2.4	0.9
3. External Resource inflow as % of GDP	+0.7	4.2	5.7	12.2	12.1	11.9
1966/67						76/77
4.* % of Rural Population (i) below the poverty line (ii)	83.1		82.9	86.7		
	41.7		44.3	60.4		

Source: calculations from Bangladesh, development in a rural economy, World Bank, 1974 and World Bank annual surveys of the Bangladesh economy. Reproduced from Sobhan, 1982 - Table 1.1, p.2.

* Assumes a poverty line based on (i) Minimum calorific intake of 212; (ii) Minimum calorific intake of 1805.

low income groups. Recent studies have reached the conclusion that the role of food stamps as a means of satisfying food consumption needs of low income households is rapidly declining. Food stamps now provide about 50 per cent less calories to holders than in 1979. The impact on the poorer households in rural areas with larger families would have been much more severe, as the eligibility for food stamps is decided on the basis of household income rather than per capita income. Findings also demonstrate a progressive increase in the numbers of the undernourished children. This drop in living standards is all the more serious because it occurred while Sri Lanka's economy was growing at the rate of five percent a year (Martins, 1983).

Bangladesh, one of the world's poorest countries, has been particularly hard-hit by two manifestations of the world recession: the slump in commodity prices and the reduction in the level of external aid. The country is heavily and increasingly dependent on external resources provided by foreign benefactors in various forms (see Table 6.7). The value of external aid rose from less than 5 percent of GDP in 1969-70 to about 12 per cent a decade later. But, while aid has apparently been increasing, the proportion of Bangladesh's population (of which some 80 per cent is rural) living below the poverty line has increased over the decade 1966-67 to 1976-77. Table 6.7 partly explains why: domestic savings fell between 1970 and 1980 more than 7 per cent to less than one per cent of GDP. Table 6.8 shows that the influx of aid has failed to conceal the devastating consequences for Bangladesh's economy of changes in world market conditions during the last decade. Between 1972-73 and 1981-82, the country's terms of trade declined by nearly 50 per cent. In fact, foreign aid by no means compensated for this. It did not keep pace with inflation and its reduction has exacerbated the grievous losses suffered by the economy. In a pitifully poor country like Bangladesh, these reductions in external aid can only have had a serious effect on the development process.

A complex causal chain links the world economic recession with rural poverty in developing countries. It can be seen that the severity of the recession's effects on individual countries depends chiefly upon these countries' domestic development strategies. Those favouring self-reliance and import-substitution, such as China and India, have felt least the slow-down in international trade and the decline in export commodity prices. Since their economies are largely protected from negative phases in the world economic cycle, they have not had to adopt restrictive "adjustment" measures. For the rural poor in these countries, living conditions are probably no worse than before the recession began and, in some cases, have even improved.

Table 6.8

The Terms of Trade Effect on the Economy of Bangladesh, 1972-1982
(in million of dollars)

	1972/73	1973/74	1974/75	1979/80	1980/81	1981/82
1. Exports in base year prices	355.3	360.7	285.3	727.0	800.0	845.0
2. Imports in base year prices	727.0	605.2	720.0	2372.0	2225.0	2129.0
3. Trade balance in base year prices	372.3	244.5	434.7	1645.0	1425.0	1284.0
4. Trade balance in curr. year prices	372.3	551.0	1050.0	1645.0	1813.0	1780.0
5. (4)-(3)		306.5	615.3		388.0	496.0
6. Current balance/GNP in current prices (%)	6.4	6.2	7.4	12.6	11.5	11.9
7. Current bal./GNP in base year prices and exchange rates (%)	6.4	3.8	7.4	12.6	8.4	7.8
8. Imports at base year level in curr. prices	727.0	1112.31	1417.7	2372.0	2689.8	2694.6
9. Actual imports	727.0	925.0	1402.4	2372.0	2524.0	2420.0
10. (9)-(10)		187.3	15.3		165.8	274.6
11. Terms of trade	100	67.9	63.4	80.3	62.9	53.5
				100	78.4	66.6
12. Terms of trade loss		493.8	630.6		553.8	770.6
13. Terms of trade effect [(12) as of GDP]		5.5	4.4		4.5	6.3
14. Change in aid disbursement		-90.2	+349.8		-74.8	-12.2
15. Terms of trade loss compensated by aid 12-14		584.0	280.0		628.6	782.8
16. Net loss to the economy (15 as % of GNP)		6.5	2.0		5.1	6.4

Sources: Reproduced from Sobhan, 1982 - Table 1.6, p. 22.

On the other hand, countries more tightly integrated into the world economy have suffered most. In these countries, the impact of declining economic growth on rural poverty is largely determined by each country's particular economic structure and by the type of adjustment policies adopted by its government. Some have sought to maintain a commitment to "basic needs" in rural areas. Others sought to restore economic balance through currency devaluation, cuts in food subsidies and other government social spending and emphasis on the export sector. Whether adjustment measures are the solution to economic crisis in the Third World in the short term is a debatable point.

This brings us back to the central weakness, outlined at the beginning of this chapter, of many developing world economies: they are still basically producers and exporters of commodities and raw materials, the export demand for which is largely determined by the developed world. At the same time, most poor countries are heavily dependent on the industrial world for imports of capital goods. The developing world's economic problems are therefore related to the structure of the world economy. Progress towards the eradication of rural poverty will be slow unless basic changes are made in the established international terms of trade.

Chapter Seven

THE INFLUENCE OF MULTINATIONAL CORPORATIONS

The purpose of this chapter is to explore the influence of multinationals on the rural economy of developing countries, in principle and practice, with reference to selected countries. Focus is on the four major influences of the multinationals in rural areas: on access to land, on the distribution of income, on technological changes, and on rural employment.

The role of multinationals in agriculture is a vast and complex subject and the related body of literature is equally large. But a major difficulty lies in the scarcity of hard evidence on their socio-economic effects in rural areas. Even the limited material available is sometimes anecdotal and distorted because of the difficult nature of such welfare issues as equity, participation, food supply, nutrition and land distribution. It is for these reasons that we limit our discussion here to an examination of a few country-specific situations on which some information is available. Discussion of each country's experience does not imply a judgement of its performance. More careful evaluation is needed of the socio-economic implications of multinationals for the rural economy of the Third World before one can judge fully their effects on the welfare of the peasants.

Multinationals' influence on the rural economy

In development literature, multinationals are seen from two inter-related ways: as mobilizers of capital and technology in the international market, and as furthering increasing dependence of developing countries on external resources, including technology and management expertise. To understand the influence of multinational operations on the rural economy of a developing country, we conceive the rural economy as a dynamic system in which farms (large and small), farmers (commercial and subsistence), workers, capital and technology, exchange and trade, managers and policy makers interact within a determined development strategy.

Given the emphasis of policy makers primarily on greater economic growth, large landowners and traders usually welcome the prospect of mechanization or the introduction of other high technology. Similarly, pragmatic policy-makers and financing institutions welcome the prospect of rising productivity per land unit and total volume of output. They may not consider the advantages of diverting these resources to the large number of small farmers and other rural poor in order to produce

necessities for them (traditional food crops and footwear for instance). Policy makers often cannot resist the multinationals' offer of large packages which promise to promote higher growth, higher profits and foreign exchange and possibly higher accumulation and savings. They consider that some foreign capital and some employment and profits are better than no capital and technology. Land, scarce capital and manpower are thus transferred from production of necessary goods for the low income peasantry to modernized luxury goods. Under socialist regimes, policy makers may seek to integrate multinational operations within a fully planned and controlled economy, even if this creates private enterprises which might grow as part of adjustment measures to improve the rural economy of their countries.

Considerable controversy has arisen over the role of multinationals. Some development economists and environmentalists accuse them of being exploitative and of destabilizing the natural environment. Others credit them with translating research into development of modern, efficient agricultural production, and with helping countries to achieve their aim of exporting cash crops. Yet another strand of thinking emphasizes the flow of foreign capital and the instrumental role of multinationals in improving the host country's foreign exchange position and its management skills.

The operations of the multinationals in agriculture are highly complex and highly variable across countries and within a country over different periods. The complexity arises from their direct and indirect influences on land tenure systems, land prices, land concentration, income distribution, employment, cropping patterns, environment and natural resources in agriculture, and on terms of trade for the supply of inputs and the purchase of products. The extent of these influences depend on the nature of the agrarian structure before the multinationals' intervention, the type of operation involved (direct investment, contract farming, joint ventures with government agencies or local enterprisers, management, or consulting contracts), and government policies. The special monopoly advantage of multinationals in these operations is their integrated system of research, inputs, supply, processing, marketing and distribution, transport and export, and their high level of management. Many developing countries, in their bargaining with multinationals, do not know enough about the components of this complex.

The agriculture sector of many developing countries has been integrated into a fast-growing international agro-industrial system. These countries handle about 80 percent of all agricultural commodities exported to the OECD countries. At

global level, it has been estimated that foreign production of multinationals owned by developed and developing countries accounts for as much as 20 percent of the world output (Streeton 1982).

Considering all economic sectors, the United States and the United Kingdom firms were parents of 60 percent of the identified affiliates in developing countries in 1980. Most of the U.S. affiliates were in Latin America (60 percent) and Asia (30 percent), while most of the British and French affiliates were in Africa and those of Japan in South East Asia. In the case of bananas, for example, marketing and distribution are principally in the hands of three transnational corporations based in developed countries, and these corporations together control about half of the banana trade: United Brands, Castle and Cook, and Del Monte. These firms have between them nine plantation subsidiaries in seven countries: Costa Rica, Ecuador, Guatemala, Honduras, Nicaragua, Panama and the Philippines. They also operate in Colombia and Suriname, have procurement agencies in a number of African countries and run their own shipping lines. One company controls the major supply of seed to more than 200 countries and through its subsidiaries, has 40 percent of the seed market.

The trend in multinational operations has been a gradual decline in direct investment (in plantations, for example) and expansion into other fields, such as joint ventures, contract farming, processing, marketing and management. Joint ventures between multinationals and host country enterprises has expanded since the beginning of economic recession in 1979/80, when many developing countries were in great need of foreign exchange. To the multinationals, contract farming and joint ventures represent little risk of expropriation since these firms do not invest substantial amounts of their capital. Instead -, they supply inputs and equipment or enter into joint operations with host countries. Accordingly, the multinationals safeguard their operations to varying extents by seeking alliances with national political and business interests.

Most countries, with funds provided by international financing institutions, extend credit to contracted farmers for the purchase of the multinationals' products. Some governments even subsidize tractor prices through reduced interest rates. In the Sudan and some Latin American countries, it is common practice for 80-100 percent of the prices of tractors and their spare parts to be provided by government agencies or domestic commercial banks often at negative real rates of interest. Some governments have arranged with multinationals to build factories within the country as part of their import-substitution policies.

The following material from Côte d'Ivoire, Malawi, Mexico, the Philippines and the Sudan indicates how the manifold activities of the multinationals have affected peasants' welfare and their access to land, employment and incomes.

Country experiences: impact on access to land, income disparities and employment

A number of multinationals have continued their ownership and/or operation of large scale plantations of commodities, such as rubber, sugar cane, coffee, tea and tobacco, which began under colonial rule in South Asia and Africa. In some cases, agreements with multinationals were made by colonial administrations in the final years before independence. In post-colonial times, some governments have displaced peasant farmers from land so that multinational plantations or large-scale production schemes could be established. In other cases, multinationals have dealt directly with contracted small farmers who have sometimes lost their land as a result of heavy indebtedness to the multinational cooperatives. The empirical picture appears to be rather mixed, and thus no generalization can be made.

Malawi has followed a growth- and export-oriented strategy in developing its rural economy. As a result, its GDP in real terms grew by 5.1 percent and agricultural production by 4.1 percent a year between 1970-1982. The explicit policy of the government has been to achieve food self-sufficiency and to encourage foreign private investment in tea, tobacco and sugar plantations and agro-industry to serve as the engine of growth by providing a favourable tax system and a liberal regime of imports, and by allowing repatriation of profits and capital. Amounts of net foreign finance increased almost 400 percent over the period 1967-1980, while exports of tobacco, tea and sugar increased at an annual rate of 18.1, 2.0 and 26.1 percent respectively between 1973 and 1980. (World Bank 1981).

Malawi relies heavily on the private commercial sector. Some 27 large corporations, mostly British, monopolize the production of tea, tobacco and sugar cane and hold together some 145,000 acres of highly productive land. They also employ about 50 percent of the total formal wage employment sector. On the other hand, the traditional peasant sector, which accounts for all food production and some coffee and tea, contains the majority of the labour force in agriculture and constitutes about 20 percent of the total cultivated land. Of total holdings, 64 percent are less than 1.5 hectare in size and the labour intensive production of maize, pulses and cassava is carried out with simple hand tools such as hoes, knives and axes. The

productivity per worker in the estate sector was 3.5 times that of the customary land sector in 1978 (Ghai and Radwan, 1983). With a population growth rate of 3.7 percent, this peasant sector has to absorb some 100,000 persons each year. Given the serious shortage of high quality land, already used by the multinationals and part of the small farmer sector, the increase in the agricultural labour force is already forcing the peasants to more marginal land. With wages of most employed workers kept deliberately at low levels on the multinational estates, income levels per household have deteriorated, inequality of income has increased and poverty incidence was about 85 percent in 1977.

The Sudan has large land frontiers and low population density. Its six year development plan (1978-83) stressed the egalitarian distribution of income through wider participation of rural people in the benefits of development. Under this strategy, agriculture and agro-industries were assigned a leading role in the national economy. However, the pattern of growth followed since the early 1970s has continued. This pattern has been biased against the traditional sector, with high priority in resource allocation given to mechanized rainfed schemes and irrigated production of sugar cane and cotton. To achieve the expansion of modern agriculture and agro-industries, the government imported foreign capital, partly through bilateral aid from the oil-rich Arab countries (mainly Saudi Arabia) and partly through contracts with multinational corporations.

The multinationals have been involved in three programmes designed to modernize the agricultural sector. The first consists of mechanized rainfed schemes which cover about seven million acres of land (five million acres authorized by government and two million unauthorized) and depend on the use of tractors. On average, 1,000 to 1,500 acre lots have been allotted to leaseholders - mostly urban-based merchants, government officials and professionals with little, if any, experience in agriculture and farm management. The multinational corporations, meanwhile, hold under lease plantations of sorghum and sesame covering an area of 250,000 acres and control the supply of imported tractors at the rate of 900 per year, each costing US \$10,000-16,000. The second modernization programme is for large-scale commercial production and fattening of sheep and cattle in an area of 27,000 acres. The third consists of a sugar cane plantation over 82,000 acres under irrigation and a sugar refinery costing about \$ 600 million (1983) from loans granted by a number of foreign countries and firms. The Government granted the multinationals generous concessions, including free irrigation water from the Nile, duty-free imports, and a 10-year exemption from income tax (Tetzlaff, 1984).

Obviously these large areas held and controlled by the multinationals and their Sudanese affiliates have increased land concentration within the modern sector. At the same time, 83 percent of total holdings in the traditional sector are of less than five acres. This process of land concentration was made possible by a government policy allowing Sudanese leaseholders and contractors to draw credit from commercial banks for the purchase of tractors which were imported with scarce foreign exchange. They also had the privilege of receiving the contracted land already cleared of trees and complete with the required infrastructure (roads and waterholes) at the government's expense. There is also evidence of increasing inequality in wages. The large scale irrigation sugar scheme and mechanized rainfed schemes employ seasonal labour at higher wage rates than the neighbouring areas. A 1982 survey provides evidence that the daily wages in real terms had declined. The diffusion of mechanization also reduced employment. The survey shows that about 13 percent of seasonal workers (about 800,000 or 11 percent of the labour force) were unemployed for about 2 months. The lack of legal protection for the agricultural workers exposed them to various forms of abuses (Dey, El-Bagir and Wagner, 1984). The contracted (leaseholders) farmers of 1,000 acres each had annual income 50 times greater than average annual income in the traditional sector.

Before the arrival of the multinationals, the land used for Sudan's agriculture modernization schemes was by no means idle. It was traditionally used by the nomadic population as natural pasture for their sheep and cattle. The shift from grazing land to mechanised production of sorghum, sesame and irrigated sugar cane required the displacement of nomads. Naturally, conflicts arose between them and the new cultivators (World Bank, 1984c). The nomads were pushed to less suitable grazing areas and were prevented from using long-established migration routes which had provided an optimal rotation pattern for year-round grazing. In many cases, this land use pattern has led to desertification and with recurrent drought in 1984 and 1985, many nomads have had to escape to cities, particularly Khartoum. In the irrigated areas, cases of bilharzia and malaria have also appeared for the first time among the indigenous population.

It appears from this scattered evidence that there has been increasing income inequality between regions and population groups and a deepening of the country's dependence on foreign capital, at high social cost in terms of employment, income distribution, social stability, participation and -- above all -- rural poverty.

Côte d'Ivoire's pattern of agricultural growth has been discussed. The focus here is on the influence of the multinationals on the rural economy. Political stability and a liberal foreign investment policy have encouraged multinationals to expand their operations into Côte d'Ivoire agriculture. All the foreign-owned firms involved enjoy exemption from export duties and taxes on profits, which they can freely transfer abroad.

With the four primary export commodities - cocoa, coffee, palm oil and timber - under the control of multinational corporations, the big question is whether the peasantry in Côte d'Ivoire has benefitted from these massive investment operations. One result of the multinationals' operations has been rapid and dramatic deforestation to make land available for expanding coffee and cocoa plantations. Between 1956 and 1982 the total forest area declined by 70 percent from 9.8 to 3.0 million hectares. The new land created by deforestation since 1956 has not been used to expand the traditional food-growing sector; land clearing has increased the concentration of holdings in the cash-industrial sector. This concentration is marked among holdings of 20 to 100 hectares, held by plantation corporations and non-agriculturalists from urban areas. Thus the rich have become richer. Meanwhile, the area under food production (yam, manioc and millet) declined from 61 to 40 percent of total farm land over the period 1950 - 1983. Thus, food imports have increased. Finally, the area under cash-industrial crops, such as cocoa, coffee and palm-oil, required for the multinationals operations increased by an average of 10 percent a year during the same period.

There is no quantitative data on employment expansion (direct and indirect as well as permanent and seasonal) or displacement resulting from the large-scale operations of the multinationals in the production and processing of cash-industrial crops. While some data indicate the creation of employment opportunities, these were mostly taken by cheap labour from Burkina Faso, Ghana and Mali. Data on real agricultural wages reveal a decline over the period 1960-1978. Many rural women in palm-oil areas have lost their traditional employment in the collection and processing of palm fruits. This work has been replaced by the technology brought by the multinational corporations (Lee in Ghai and Radwan, 1983).

In the villages of Côte d'Ivoire there has been a change in patterns of food consumption and in food habits. The multinational corporations made deliberate efforts to expand the domestic market for two of their products, instant coffee and dehydrated soup cubes - by selling them at low prices and

demonstrating their easy use. Both products have little or no nutritional value for the peasants and their children. Multinationals are not expected to undertake welfare programmes, but one would expect compensatory measures and redistributive measures by the government to make this economic boom benefit the peasantry, considering that 60 percent of the population is rural. Despite dazzling overall economic growth, due mainly to dramatically increased export earnings, the standard of living in rural areas of Côte d'Ivoire has remained poor; life expectancy was found to be as low as 46 years for men and 49 for women and illiteracy was as high as 65 percent in 1982. It could be argued that the harmful effects of export-oriented agriculture might have been mitigated through government policy measures.

The Philippines is one of the few countries to have pursued policies favouring both agrarian reform and export-led growth based on large-scale plantations. Agrarian reforms during 1933-1972 were only partial. They excluded landless workers and plantations of cocoa, sugar, pineapples and bananas, whether operated by domestic or foreign capital. This occurred despite the 1972 land reform which was an explicit commitment to attack the concentration of land ownership and "to liberate the tiller of the soil from his bondage". Multinationals have been active in tuna and shrimp production and marketing, in the poultry and animal feed industry, and above all in the production, processing and distribution of rubber, sugar cane, banana and pineapples. This process has contributed to the displacement of food production and also of small and tenant farmers who, under pressure from these corporate ventures, have been persuaded to sell out or lease their farms and become wage labourers on their own land. By 1982, landless agricultural workers in the Philippines were estimated to be about 40 percent, while the index of real wages in agriculture fell from 100 (1972) to 69 in 1980 (FAO 1983h).

The expansion of the multinationals' activities was aided by a ban on workers' strikes in "vital industries" (a category which includes "vital foreign exchange earners"). The multinationals and their domestic affiliates were also exempted from a land ownership ceiling of 1024 hectares fixed for corporates. The expansion of these commercial plantations was achieved through the accumulation of land at the expense of evicted peasant farmers. Rural workers in these areas, particularly Mindanao, are usually seasonal casual labourers with a limited role in the highly capital-intensive production and processing of banana and pineapples. For instance, one corporation holds or controls about 47,000 acres in South Mindanao (including 23,000 acres of pineapples and 18,000 acres of bananas) but employs only about 8000 workers.

According to a United Nations study, the multinationals rent large tracts of land for banana production at very low rates "thanks to negotiations, bribery and in some cases forced eviction". Local contracted growers have to pay additional fees for technical advice, charges for "all necessary work", and are paid a very small fraction of the retail price of bananas in foreign markets. Together, these factors have resulted in 84 per cent of the growers being trapped into chronic debt (UN/ESCAP 1981).

Mexico's involvement with multinational operations in rural areas must be seen in the historical context of that country's agrarian system. This complex system has been characterized by a continuing conflict between the indigenous communal tenure depending on family labour, and the larger scale commercial farms prevailing in the North and Gulf regions. Another important factor is the proven capacity of Mexico to respond to changing economic requirements and social pressure from the peasants. The interplay of these two factors has been central to the political economy of rural development in Mexico from the time of Zapata's revolution in 1910 until today.

In this dynamic situation the multinationals have been able to adapt to Mexico's development policies on land ownership, sharing in capital investment, wages, prices, taxation and technology transfer. For instance, prior to the 1910 Revolution, 25 percent of agricultural land and 65 percent of capital invested outside agriculture was owned by foreigners (Vernon, 1963). Still, multinationals made up 45 percent of the output of Mexico's largest 290 firms' in 1970 and 26 percent of the foreign capital in agro-industries in 1973. By 1975 they employed 38 percent of workers in grain processing and 25 percent in sugar cane mills (ECLA, 1981). The flow of external capital increased more than ten times during the period 1970-1980. Thus, multinationals still play an important role in the rural economy of Mexico, through direct investment and joint enterprises and contract farming. In fact, Mexico is third on the list of developing countries with large-scale multinational involvement, after Brazil and Indonesia. The implications of this involvement for employment have to be seen within the country's development strategy for export-oriented growth, promotion of diversified exports and industrialization of agricultural products.

The role of multinationals in the Mexican rural economy has changed with the shift in government policy toward distribution of federal government investment expenditure to different states and to different types of activities. Since 1940 the pattern has been the concentration of agricultural investment in the Northern and Gulf states as a means of increasing farm output,

particularly for export. At the same time, there has been a high degree of government income transfers for welfare purposes in these states. The pattern of public investment shows that the states in which the traditional food crop sector prevails have been relatively neglected.

The states which received priority in public investment are those where large-scale farms and multinationals prevail. The expansion of large irrigation schemes has been spectacular -- from 70,000 hectares of irrigated land in all Mexico at the beginning of this century to around five million hectares in the 1970's. The three northern states of Sinaloa, Sonora and Tamaulipas, received 40 percent of public investment in irrigation and at present less than one percent of the landholders own 20 percent of all irrigated land (Esteva, 1983). Through the credit system promoted by public funds for purchase of fertilizers, improved seeds and tractors, the commercial large-scale farming sector and part of the small farmers sector have been closely linked with the multinationals' contract farming operations. Since 1960 multinationals have invested directly and indirectly in sugar, coffee, tobacco, cotton, fruits and vegetables and production and processing, as well as in cattle-raising and the meat industry.

Their operations have influenced the rural economy by determining wages, prices, the quality of products, volume of demand, storage, transport, sales contracts and importation of capital goods and their allocation. Such influence, mixed with the public policy regarding the pattern of growth, has deepened income inequality between the farmers in the food crop sector and those in the commercial/industrialized crop sectors (as we shall explain later). Furthermore, the concentration of capital/technology and management skills in the latter sector has made food crops less attractive to the producers, mostly in areas of communal tenure. The production of corn, used for making the staple food of the poor, tortilla, has been relatively neglected. Multinationals stayed outside cereal production but in many cases corn is used as animal feed in the large cattle-raising schemes. Between 1965 and 1982, cereal imports increased 17 times.

Under contract farming by multinationals, small and medium farmers have to commit their labour and inputs to cash crops and follow their operative regulations. Thus, they assume risks and responsibilities in production without having marketing or processing power. In areas of animal production and related agro-industries, land has been taken away from the traditional communal peasants and family labour has been converted to seasonal and permanent daily wage labour. Contract farming has

strengthened the role of intermediaries between the farmers on one hand and government agencies and multinationals on the other. There are reports of increasing exploitation and social conflicts (Esteva, 1983).

This pattern of operations by multinationals has accentuated the problem of regional income inequality in Mexico's rural areas. An analysis of personal income distribution indicates widening income differentials. It shows that the income share of the poorest ten percent of the population, representing almost 30 percent of rural inhabitants, declined from 2.43 to 1.08 percent over the period 1950-1977, while the share of the top ten percent substantially increased (Reyes 1982).

The role of host governments

This discussion of the multinationals' special bargaining power, the nature of their operations and their influence on the rural economy in selected developing countries is only tentative. This is due mainly to the highly complex and variable nature of their operations, not only across countries but also within a country over different periods. In identifying the extent of their influence on access to land, income inequality in rural areas, employment and power structure, it is difficult to separate these influences from those of public policies. This is particularly so in the case of joint venture operations between governments (or the public sector) and multinationals.

The overall common issue arising from the operations of the multinationals is the conflict between economic and social or welfare objectives. Through a variety of monopoly advantages under their control, multinationals alter the distribution of benefits among primary producers in agriculture, importers, exporters, consumers and the host government. What is likely to have happened in the distribution of gains and losses had the multinationals been absent? It is difficult to answer this question - the high level of protection and market bargaining power of the multinationals distort the market operation (because of special tariffs, taxes, price and wage controls, displacement of resources and the like). Operations or investment by multinationals may be efficient and profitable in commercial terms, yet socially undesirable because they are sustained only by high levels of protection and market bargaining power. While total output and income of a country may grow through the process of capital-output transformation, the application of modern technologies and the expansion of export earnings, these total economic gains may conflict with the perceptions and the welfare of the peasants.

In principle, host governments should provide compensatory measures to compensate deprived groups in rural areas for their losses, using the benefits accrued to certain sectors of the society and to the country as a whole from increased total output and export earnings. Most governments are, in the final analysis, primarily responsible for welfare and rural development. Multinationals operate in developing countries with the full agreement (and, in some cases, at the invitation) of their sovereign governments. Multinationals carry out their business within agreed contracts resulting from a long process of bargaining. They are bound by established rules and laws on foreign investment, tax concessions, tariff policy, repatriation of capital and profits, exchange rates, land ownership rights and appropriation, employment of foreign personnel, etc. In negotiating agreements with multinationals, governments have the responsibility of ensuring that the negotiators and beneficiaries do not represent a small group in the society. However, in some cases, multinationals also abuse agreed contracts and use their power and pressure to violate agreements. This is particularly so under joint ventures in which a tripartite force is established between the State, the multinationals and the urban business elite, whose interests are aligned with the interests of the foreign firm. The peasants, who have no bargaining power, are left to bear the brunt of the loss. Even in cases where trade unions exist in rural areas, they are often silenced.

Let us take some examples to illustrate the conflict between higher economic return to multinationals and their local partners, on one hand, and social loss to the peasants on the other. Once farmland is turned over to mechanization and the production of cash crops for multinationals, the level of resources available for food production will be reduced unless new land is opened up or traditional staples can be grown between the cash crops. While cash crop producers' incomes and the capacity for accumulation and savings increase, the food crop sector suffers as employment opportunities are reduced or wages fall. If there is no compensatory mechanism for the peasants, their consumption levels fall because of higher food prices or because cheaper imported food is not available. As for employment, researchers often do not calculate the alternative: a lesser degree of mechanization and the investment of the same value of resources in the peasant sector. Instead, the multinationals and their associates within the country strive for the expansion of mechanization, through increased importation or local manufacture.

Countries which have diverted resources from the production of traditional staples to the production of commercial high-value crops include Kenya and the Philippines (pineapples, tobacco),

Nigeria (coffee and cacao), Guatemala, Mexico and Senegal (luxury vegetables such as broccoli, asparagus, cauliflower and strawberry). These goods, like the instant coffee and soup cubes produced in Ivory Coast, are not ones needed by the poor.

Clearly, it is a complex task to trace the impact on the rural poor of the diversion of resources, of the supply of sophisticated farm machinery instead of hoes and other capital-saving or labour-creating techniques needed by the peasants, of the concentration of land accumulated since the colonial period, and of the introduction by joint ventures of commercial high-value crops combined with the supply of tractors and advanced hybrids. It is often held that these new production systems benefit enterprising and medium-to-large farmers but exclude the peasants, worsen income distribution among the rural population and create import dependence. Another viewpoint is that with re-organization, small farms could be made receptive to existing modern technologies, such as medium and large tractors.

Another area of conflict between economic and welfare interests is the employment of agricultural workers on plantations operated by multinationals. The interest of the plantations is to employ a smaller number of permanent workers and to rely on seasonal labourers who are normally paid lower wages and do not receive social amenities such as social security and housing. Thus, their income is distinctly lower than that of permanent workers and their bargaining power is weak. Seasonal workers recruited from outside the country are even worse off, which is why they are often preferred by plantation managers to the local workers (e.g. workers from Burkina Faso and Ghana in Côte d'Ivoire, and Indonesian workers in Malaysia). According to the ILO, jobs and wages on plantations "are determined in an arbitrary manner and unscrupulous employers can exploit workers" despite the provision of minimum wages. The education of the workers' children on plantations and other agri-business ventures presents another problem. Foreign firms do not usually provide this service, although it may be required by law or by negotiated agreements. The ILO Committee on Plantation Workers has emphasized that the education of these children, like that of other children, is the responsibility of government.

These conflicting interests raise the question: why is the bargaining position of the developing countries in dealing with multinationals so weak? A major problem is the lack of government monitoring and control of the multinationals' operations. There is little evidence in developing countries of institutional arrangements specifically aimed at regulating such operations in agriculture. Very few developing countries have central government agencies that collect information, negotiate with

multinationals and monitor their agricultural activities. These responsibilities are dispersed and exercised separately by various ministries and state agencies (Economics, Planning, Foreign Affairs, Finance and Agriculture, etc.). This inadequacy tends to weaken the country's bargaining power and in many cases it leads to ineffectual monitoring of agreements and their implementation. There is also little exchange of experiences among those developing countries which permit foreign investment in agriculture. Very few countries make use of the available assistance and advisory services offered by the UN Centre on Transnational Corporations or by UNIDO, UNCTAD, ILO and FAO.

Part Three
THE ATTACK ON POVERTY

Chapter Eight

ANTI-POVERTY DEVELOPMENT STRATEGIES

In theory, policy makers have at their disposal a variety of measures to reduce the incidence of absolute rural poverty, both in level and absolute number. The list would include, say redistribution of land, reallocation of public expenditure and foreign aid in favour of rural areas, more investment in agriculture and human capital, strengthening of peasant movements, decentralization and ruralization of public administration, genuine shift in price and subsidy policies in favour of the rural poor and so forth. However, such generalizations are risky because of variations over time and within countries' own social organizations. Another factor is each countries' formidable political power structure. Development strategies, national development plans and policies are the product of various interest groups. These strategies and plans reflect the perceptions of those who run the country.

Sustained political commitment

Genuine political commitment in principle and practice exercised consistently over a period of time (say, at least 20 years) is essential for any anti-poverty strategy to succeed. Past experience has shown that speed in implementing decisions on the development pattern of economic growth with poverty alleviation, determines the magnitude of rural welfare. This, in turn, is determined by the process of decision-making in the political system. A key consideration is whether the system is authoritarian or one in which decisions are taken by consensus. Land reforms undertaken in the 1950's and 1960's as direct measures to attack rural poverty in Algeria, Cuba, Egypt, Iraq, South Korea and Peru are examples of the former in action, while India, Mexico, Kenya, Chile (1960-72) represent the latter. Conflicts within political structures over the last 10 years in many of these countries has led to a shift in the flow of benefits from the rural poor to the interests of urban traders and industrialists.

An authoritarian system in which diverse interest groups do not participate freely in the decision-making process may sometimes achieve rapid overall progress. One man or small group, takes quick decisions and accomplishes a few big things, often efficiently and competently. History shows, however, that

after a time such suppression gives way to social upheavals. Faced with these two alternatives one is confronted with a dilemma. The authoritarian approach promises quick results; the democratic one is plodding and indecisive, but necessarily so, if democratic political institutions are to be forged. Not all countries with authoritarian political systems have taken competent decisions to alleviate rural poverty. In Bangladesh, Malawi, Paraguay, and the Sudan and Zaire, absolute poverty has persisted at a level of between 50 - 80 percent of the rural population. This poses again the fundamental issue of the perception and meaning of development as conceived by those who run the country. This determines the degree, speed and the time horizon over which rural poverty is to be reduced. In most developing countries the rural poor do not usually know how the political system is organized and how its institutions function. Policies to enlist their participation and promote their organization are therefore essential in an anti-poverty strategy.

The pace of reform will differ according to the influence of other factors as well. In Africa, for example, the stability required for sustained growth and poverty alleviation will take a long time. In many of these countries, a stable political system has yet to evolve. Political institutions are still in formation and the approaches followed to change agrarian structure are still in the transitional stage. This can be seen in the recent experiences of Liberia, Nigeria, Burkina Faso, Uganda and Ghana.

Alternative strategies

The overriding emphasis on poverty alleviation and its time horizon in a country depend on the path for rural development chosen by policy makers and how this path is translated into operational planning. It depends also on the extent and content of government intervention in the ownership and distribution of productive assets which in turn will lead to gains and losses among the socio-economic groups of the population, such as large landholders, small and landless farmers, nomads, traders, moneylenders, the urban rich and workers and industrialists.

Usually policy makers and planners have several development objectives in mind - such as rapid economic growth, equity and better living standards for the poor, full employment and food security. These broad objectives are not always clearcut and plans sometimes lack quantitative targets. Anti-poverty strategies should favour agriculture over industry, rural areas over urban, the poor over the rich, and the poorest over the poor. In most countries some elements of each of these approaches exist, depending on the initial economic and social structure. A country may decide to reallocate the means of production and

change its economic and political power structure before embarking on detailed economic and social changes (as in China, Egypt, Cuba, Iraq, the Republic of Korea, and Nicaragua).

In assigning development priorities to agriculture and rural areas for instance, there are usually interdependence and trade-offs of benefits between this sector and other sectors of the economy. We can illustrate this linkage by two examples. If substantial resources are injected into agriculture, the demand for labour, chemical fertilizers, pesticides, transport and other forms of capital would increase; therefore, the incomes of non-agriculture sectors and subsequently their demand for agricultural products would also increase. The other example is investment in rural infrastructure. Construction of rural roads and irrigation schemes employ landless labourers in the construction phase. They benefit small farmers by reducing transportation costs for both product and inputs and by increasing their access to water. Local contractors would also benefit. Large and medium farmers, who produce the bulk of the marketable surplus, would benefit most from irrigation and roads. The benefits to the landless and small farmers from investment in infrastructure would be maximised in cases of land reform and settlement. However, employment creation without redistribution of productive assets would not lead to a substantial increase in the volume of employment in countries where landlessness is extensive. The benefits to landless workers are seasonal and of limited scale. Strategies which concentrate on limited scale income generation and on income transfers giving overriding importance to fast growth will still leave many in absolute poverty in rural areas for some decades. Examples are Bangladesh, Brazil, Ivory Coast, Paraguay, Nigeria and Malawi.

Since the magnitude and intensity of rural poverty is intolerably high, a slow pace of social and economic reforms may not be politically desirable, particularly as mass communications media available now in rural areas are presenting lifestyle of the rich which may add to the discontent of the poor. This in its own turn threatens political stability. Indeed, the countries with better performance in poverty alleviation have been the ones characterized by reallocation of the means of production and by a relatively more egalitarian distribution of income combined with a substantial economic growth. This strategy has led to increases in the level of employment and productivity of the rural poor as well as their access to basic needs.

Three types of anti-poverty strategies can be distinguished. One promotes the redistribution of existing productive assets notably land, water and related services to increase productivity, employment and incomes of the rural poor under a

new social order. This strategy is accompanied by greater investment in human resources (education, health, housing and rural infra-structure) for improving abilities and expanding employment opportunities, though the benefits of this investment have a long gestation. Another type of strategy leads to the redirection of the flow of realized increase in total income or consumption from the rich, via fiscal measures. This benefits certain regions or rural areas and identified target groups of the rural poor (through rural development projects, food subsidies, food for work programmes, child nutrition and school feeding, maternal health services, access of the poor to income generating capital, etc.). A third type is the conventional strategy of overall GNP growth, which is supposed to benefit all groups of the population through market forces, with minor government intervention in prices and wages and irrespective of the initial distribution of land, capital and human abilities. The effectiveness of this strategy has been a subject of debate since the 1960s. In most cases this strategy alone has not reduced poverty. In many cases it has worsened income distribution and by-passed the landless peasants, particularly in those countries with high population growth and rapidly-expanding unskilled labour force in agriculture. In the present-day context, with millions being added to the ranks of the rural poor, whether a country can politically afford to wait for slow and evolutionary structural change is questionable.

Which type of development strategy benefits most the rural poor: a conventional income transfer strategy (i.e. taking money, through taxes, from the rich and giving it to the poor, while total income remains the same); a redistribution of land, giving all the rural poor a means of livelihood; or a pure growth strategy aimed at raising the per capita income of the country as a whole and producing a "trickle-down" effect strong enough to help the rural poor? To explore these questions, India is used as an example, since it has not only a high incidence of poverty, but also the largest number of rural poor in the world. The effects of alternate strategies on its economy were studied using a macro-model, that is, an approximate representation, based on actual data, of India's economy and the known interrelationships between sectors, between saving and investment, between private and official consumption, and between factor earnings such as wages, interest and profits (Sinha et. al, 1979).

In Table 8.1, the results of four alternative development strategies adopted for that study are presented. The first two are redistribution strategies: one aims at doubling the per capita income of the poor through income transfer from the rural rich to the poor; the other is a radical land reform allocating around two hectares of "average" land to each household. The

second pair of strategies are growth-oriented: one directed exclusively towards the poor, the other aimed at raising average national income by 50 percent.

In the first two strategies, the rural rich lose and, given the high concentration of land holdings, the loss is rather drastic in the case of land redistribution. In terms of the income levels and of income shares, the land redistribution strategy gives the best result for the rural poor. The income redistribution and the growth strategy directed towards the poor are reasonable options for the foreseeable future. The first, involving continuous income transfers, results initially in a loss to the rich of 18 percent of their income. However, because much of the new income generated for the poor would likely be spent on foodgrains and basic necessities largely controlled by the rich, the rural rich recover some of their losses and suffer ultimately only a 13 percent loss. Their share of total income is reduced by around 4 percent, while the share of the rural poor is almost doubled. The second feasible option, which injects additional investment to double the income of the rural poor, certainly benefits them. At the same time, the rural rich increase their level of income by as much as 20 per cent (although their share of total income declines by nearly 4 per cent).

The aim of the fourth strategy, that of raising national per capita income by 50 percent, was in fact the broad objective of India's Fifth Five Year Plan (1978/1983). It was not met, but even if it had been, the rural poor would have gained 41 percent in income levels while losing marginally in their share of income. By comparison, the rural rich would have gained by 43 percent in their income levels but lost two percent of their income share. Overall, the rural areas would have marginally lost to the cities. The rural poor would have remained significantly below the poverty line, a result which would have been reinforced if population growth during the plan period had been taken into account.

Examining the implications of assigning priority to a particular sector, (such as foodgrains, non-foodgrains, livestock, total agriculture, light industries, heavy industries and the service sector), it was found that only those strategies directed exclusively towards agriculture (particularly foodgrains) produced even marginal increases in the income share of the rural poor. However, the rural rich retain their shares as before. Overall rural income distribution remains virtually the same. This indicates that programmes which put emphasis on agriculture, particularly food grains, will help the rural poor more than any other type of growth-oriented development strategy.

Table 8.1
Income Levels and Shares of the Rural Poor as a Result of
Alternative Development Strategies (India)

Strategies	Rural Poor			Final			Rural Rich			Gains or Losses			Gini-Coefficient Co-efficient
	Initial Level (in Rs)	Share (in Rs)	Final Level (in Rs)	Share (in Rs)	Initial Losses %	Final Share (in Rs)	Initial Level (in Rs)	Final Share (in Rs)	Initial Level (in Rs)	Final Share (in Rs)	Share (in Rs)	Gains or Losses %	
A. Distribution													
1. Doubling of the per capita income of the rural poor by continuing transfers from the rural rich to the rural poor	171.0	8.4	341.9	16.5	+100%	942.3	46.3	819.0	39.6	-13.1%	0.34	0.21	
2. Radical land redistribution	171.0	8.4	362.9	17.5	+123.9%	942.3	46.3	631.1	28.9	-33.0	0.34	0.10	
B. Growth													
1. Growth strategies oriented to projects exclusively directed to the rural poor aimed at doubling their per capita income	171.0	8.4	341.9	12.9	+100%	942.3	46.3	1128.4	42.4	+19.7%	0.34	0.27	
2. Growth strategy (b) aimed at raising overall national (per capita) income by 50%	171.0	8.4	241.3	8.0	+41%	942.3	46.3	1347.9	44.6	+43%	0.34	0.34	

(a) Income shares relate to total disposable income and not only rural income.
 (b) This strategy is roughly equivalent to the Government of India, Fifth Five Year Plan Strategy.

Source: R. Sinha et.al., 1979 - Tables 4.6, 4.8, 6.6.

Table 8.2
Rates of Economic Growth, Parameters of Equity and Rural Poverty
in 13 Selected Countries - 1960 - 1982

(a) Economic Growth Indicators

	Annual Rates of Growth Percent														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
Population	Total	1960-1970-	1960-1970-	1960-1970-	1960-1970-	Agric.	GDP	Cereal Prod.	Per Capita	1969-71=100	1961	1983	1960	1982	- 129 -
	1970	1982	1970	1982	1970	1982	1970	1980	1979 - 83	1969-71=100	1961	1983	1960	1982	
Group A:															
Low Poverty															
Algeria (20)	2.4	3.1	4.3	6.6	0.1	3.9	0.7	0.8	-1.8	75	4	5	5	5	
China (Circ 5-7)	2.3	1.4	5.2	5.6	1.6	2.8	1.7	1.5	4.8	124	29	44	23	28	24
Cuba	2.1	1.1	8.0	6.0	2.4	8.9	1.9	1.1	113	14	38	100	18	30	30
Egypt (25-1976)	2.6	2.5	4.3	6.4	2.9	3.0	2.6	8.2	-1.7	100	100	100	18	30	12
Korea, Rep. (11-1978)	2.6	1.7	8.6	8.6	4.4	2.9	6.7	-3.9	-1.5	125	19	54	11	26	24
Iraq	3.2	3.5	6.1	5.7	5.7	5.7	25.9	3.6	87	27	32	20	20	34	
Sri Lanka (26-1991)	2.4	1.7	4.6	4.5	3.0	3.2	4.3	4.3	-2.9	154	22	24	14	31	9
Tunisia (15-1977)	2.0	2.3	4.7	7.0	2.0	3.6	5.7	4.6	128	2	4	17	33	7	12
Group B. Medium and High Poverty															
Indonesia (44-1980)	2.1	2.3	3.9	7.7	2.7	3.8	-1.2	1.4	2.9	117	24	26	8	23	8
India (51-1978)	2.3	2.3	3.4	3.6	1.9	1.8	9.7	3.5	2.5	101	15	24	17	25	14
Malaysia (38-1980)	2.8	2.5	6.5	7.7	5.1	2.4	2.0			150	7	9			
Pakistan (39-1979)	2.8	3.0	6.7	5.0	4.9	2.7	6.9	6.6	0.4	105	64	72	12	17	5
Thailand (34-1978)	3.1	2.4	8.4	7.1	5.6	4.4	6.9	18.9	2.0	138	14	18	16	21	14

Source: World Bank, 1984a; FAO, 1985b;

Group A - Absolute Poverty level, below 30 percent of Rural Population.

Group B - " 30-50 percent (Medium) and above 50 percent (High).

Figures in parenthesis are estimates of Absolute Rural Poverty levels and year of estimate presented in Table 1.1, Chapter one, except for Algeria, the estimate of which is made by UNICEF.

Table 8.2 (cont'd)
b) Parameters of the degree of Equity and Rural Poverty

(1)	Income Distribution Indices				Nutrition		Health		Illiteracy +15 years with percentage access to safe
	(2)	(3)	(4)	(5)	Daily per capita Calorie Supply per thousand % of Requirements.	Infant Mortality at Birth (Male) Popul.	Life Expectancy of age		
Rural Areas	Holdings	Rates in Concentra- tion	Agriculture Index Carca						
1970-80	1970-80	1980		1982	1982	1960 1982 %	1960 1982 %	Change drinking	
1981 water Group A. Low Poverty	1980/81								
Algeria (20-1977)	0.32			2635	110	165 110 -35	46 59 +28	60	58
China (circa 5-7 1983)	0.18			2556	108	165 67 -59	41 65 +58	31	9
Cuba			148 (1955=100)	2997	130	35 17 -51	62 73 +18		
Egypt (25-1977)	0.35	0.48	208 (1960=100)	3271	130	128 96 -25	46 61 +33	66	70 Rural
Korea, Rep. (11-1978)	0.30			2979	127	78 32 -59	52 65 +25	62	7 130 Rural
Iraq	0.18			2788	116	139 73 -47	47 59 +26	62	15 Rural
Sri Lanka (26-1981)	0.37		160 (1970=100)	2064	93	71 32 -55	61 67 +10	18	15
Tunisia (15-1977)	0.37		124 (1970=100)	2653	111	159 65 -47	48 60 +25	17	70 Rural
Group B. Medium and High Poverty									
Indonesia (44-1980)	0.62			2383	110	150 102 -32	40 52 +30	19	
India (51-1978)	0.64			2047	93	165 94 -42	43 55 +29	31	
Malaysia (36-1980)	0.46			2676	119	72 29 -60	52 65 +25		
Pakistan (39-1979)	0.47	0.61	149 (1965=100)	2277	98	162 121 -25	44 51 14	20	
Thailand (34-1978)	0.40	0.46	140 (1965=100)	2295	103	103 51 -51	50 61 +22	63	

Source: Khan and Lee, 1983; World Bank 1984a; UNICEF 1984b; various ECLA, FAO and ILO data.

An important policy issue emerged from the India study. It is only in the industry and service sector-oriented strategies that the rural rich lost out heavily. This means that if the rural rich are the main obstacles to major structural changes, any strategy which makes them richer strengthens their relative position.

Some country experiences in sustained economic growth and poverty alleviation

To analyse the effectiveness of development strategies, this section identifies two groups of countries: those which have achieved low poverty levels of less than 30 per cent during the last two decades; and those countries with continuing high or medium poverty levels. The principal characteristics of their development strategies are then explored. Growth rates of population, total GDP and agriculture GDP, percentage of gross domestic saving, and the index of food production are used to measure economic growth. With regard to equity and poverty level, use is made of the Gini coefficient of income distribution on rural areas, the rate of change in real wages for agricultural labourers, average per capita daily calorie supply, life expectancy at birth, infant mortality rates, percentage of illiteracy, percentage of children enrolled in primary schools, and the percentage of rural population in absolute poverty (below the poverty line established by each country).

Table 8.2 presents these indicators as they apply to 13 developing countries. In the group which achieved low levels of rural poverty are two low income countries (China and Sri Lanka) and six medium income countries (Egypt, Cuba, Algeria, Tunisia, Republic of Korea and Iraq). The second group consists of 5 countries that have made some progress against rural poverty but continue to have medium and high levels: two low income countries (India and Pakistan) and (three medium income countries) Indonesia, Malaysia and Thailand.

Countries with sustained fast growth, equity and low poverty levels These countries have adopted development strategies which give absolute priority to equity, poverty alleviation and the redistribution of the benefits of economic growth. On average, they achieved a high rate of annual GDP growth of 6 to 7 percent and agricultural GDP growth of around 3 to 4 percent a year over the period 1960-1982. Some, such as Egypt and the Korean Republic, grew faster than others (for example, Sri Lanka). Seven out of the 8 countries were able to allocate 25-30 percent of their GDP for gross domestic investment and slightly less for saving. All achieved a high degree of equity and low poverty levels. This is because redistribution of

productive assets, particularly agricultural land, and massive public expenditure aimed at improving the quality of rural life constitute the foundation of their rural development strategy. Economic growth has been linked to redistribution policies providing substantial public expenditure on health, education and rural infrastructure.

On equity criteria, this group of countries performed well in terms of low Gini coefficient of income distribution in rural areas ranging from 0.18 in China and Iraq to 0.37 in Sri Lanka and Egypt. In most cases real wages in agriculture has risen over the last two decades. This low degree of inequity was realized mainly through land redistribution programmes, increases in real wages in agriculture and investment in human capital, leading to increasing labour productivity and expanded opportunities for higher earnings. The redistribution of the means of production, combined with a deliberate policy to redistribute the benefits accrued from sustained high rates of growth, led in Iraq, for instance, to a sharp reduction in the degree of inequality in income distribution and a narrowing of the gap in living standards between rural and urban areas. According to recent studies in Iraq, the Gini coefficient of income distribution at national level fell from 0.68 in 1956, before the land reform measures of 1958 and 1970, to 0.22 in 1979 (FAO/ECWA 1985).

Most of these countries began implementing their plans for rural development after having established a new order of social and production relations in agriculture under widely varied systems of land ownership and management. These plans provided for the transfer of income flow from growth to improve education, health and quality of life in rural areas, plus measures to increase food production, subsidize basic goods and services needed by the poor and decentralize government services and management to local level with the participation rural people's organizations. In order to speed up the process of rural development, countries such as Tunisia used systematic surveys to identify needy rural areas. Others, such as Egypt and Sri Lanka, identified special categories of the poor in their plans for food subsidies. (Total subsidies in Egypt have reached over 10 percent of total GDP in 1984.)

Investment in human capital has been a prominent feature in anti-poverty strategy of this group of countries, and remains a basic thrust despite economic difficulties since 1980 in some of them. This investment has paid dividends: the life span of total population has increased by about 35 percent, resulting in life expectancy at birth of about 60-75 years, while infant mortality reduced by 30-50 percent during 1960-82. Many of these

8 countries also managed to cut down fertility rates, reducing population growth by almost half since 1960. This impressive record was realized by allocating massive resources for free primary health care, school feeding, preventive medicine, provision of safe drinking water in rural areas, women's education and family planning programmes (with the exception of Algeria and Iraq).

Education, aimed at providing the rural poor and their children with equality of opportunities and better social and economic prospects has figured prominently in these countries. Illiteracy campaigns coupled with free and compulsory schooling for children reduced illiteracy rates to less than 10 percent in Cuba and the Republic of Korea and to 15 percent in Iraq and Sri Lanka. Child enrolment has almost doubled during the last two decades. In order to adjust schooling to labour requirements in agriculture, Cuba introduced a new system of full boarding schools in rural areas based on the principle of half-time study in order to eliminate the traditional disdain among the educated elite toward manual work.

Increasing food production, raising nutritional standards and raising the productivity and real wages of agricultural labour households are given clear priority in the pattern of agricultural growth. This pattern is evident in the sustained growth rates of agriculture GDP and the per capita food production index, which exceeded the rates of total population growth in 5 out of 8 countries during 1960-82. With the exception of Algeria and Egypt, these rates were even higher than the weighted average of all low and medium developing economies. This is an important achievement as the total food production index more than doubled between 1961 and 1983/84 according to FAO data. This trend, coupled with favourable pricing policies, has contributed to improvements in nutritional standards in most of the 8 countries, with average daily calorie supply per capita being as high as 2500-3000 in 1982. This represents about 110-125 percent of average calorie requirements.

Several factors have contributed to this favourable level of food production and nutrition. Institutional reforms in agriculture have provided production incentives and security of land tenure. Deliberate government policies have lead to increases in cereal production (by 8 times in Algeria, 4 times in Iraq, Cuba and Egypt and somewhat less in Tunisia, Sri Lanka and China during 1961-80). The irrigated land area was expanded by 3 times in Cuba and the Korean Republic, 2 times in Tunisia and by 50 percent in China and Iraq. The supply of agricultural credit, particularly for fertilizers has been increased and consumption increased at annual rates of 18, 22 and 28 percent in Cuba, China

and Iraq respectively between 1961 and 1980. These agricultural services were organized as part of decentralized management and decision making at local level.

This increasing productivity in agriculture, combined with favourable pricing and wage policies, a substantial increase in non-farm employment opportunities and the fast growth of industry and services sectors, has led to an average increase in real wage rates in agriculture of 50 percent. The net additional labour force has been absorbed and the proportion of households depending mainly on wages from agricultural labour as the major source of income has been reduced. This pattern of agricultural growth has contributed to greater purchasing power and better nutritional standards among the low income groups in rural areas. This was no simple task. With firm commitment and clear vision on the part of policy makers, these countries took, on average, about 25 years to achieve low poverty levels.

Countries with continuing high and medium poverty levels
The 5 countries in this category are, admittedly, all Asian. However, their total population in 1984 was 1050 million, of which three-quarters was rural. They had and continue to have all the development problems associated with rural poverty. They have a varied and rich experience in attempting to arrest rural poverty and reduce its levels.

In designing their development strategies and plans over the last two decades the policy makers of these five countries have recognized the gravity of rural poverty problems, particularly in the face of declining land/population ratio and the rising level of mechanization, which has lead to increased landlessness and impoverishment in rural areas. Their development plans, have given poverty alleviation, but have emphasized on spreading the benefits of economic growth through market forces rather than through greater equity and structural changes. Apart from setting growth rate targets in sectors of the economy, India and Malaysia explicitly quantified the desired reduction in poverty and its indicators (school enrolment, physicians per 1000 population, employment, percentage of population with access to safe drinking water etc.). The rural poor are identified and classified. The Malaysian 1981-85 Development Plan, for instance, fixed differential rates of government expenditure on health, education and safe drinking water to favour poor regions and poor socio-economic groups. Economic growth rates of 8-12 percent were fixed for backward rural areas, while the national average is 7 percent. The target of the Malaysia plan is to reduce poverty at the national level from 29.2 percent in 1981 to 16.7 percent in 1985 and even lower,

to 17 percent in 1990. Similarly, India's most recent development plan aimed at reducing poverty throughout India from 48.1 percent in 1980 to 30 percent in 1985.

The projected reduction of rural poverty is largely based on the assumption of a "trickle-down" of the benefits of economic growth, without any significant institutional reforms in the agrarian system. Economic growth has in some cases been impressive. All 5 countries have achieved sustained total GDP rates since 1960, though slower than those recorded by the group of low poverty countries. Similarly, agricultural GDP has slowed down during 1970-82 compared with growth rates in the preceding decade. India had the lowest rates (3.5 percent total GDP and 1.8 agricultural GDP).

Priority has been given in all 5 countries to food grain production. The rate of production has consistently increased in all the 5 countries at the annual rate of 2-4 percent and Pakistan, India and Indonesia have succeeded in meeting almost all their food requirements. Malaysia and Thailand have achieved high rates of growth in agriculture (5.1 and 4.4 respectively) and per capita calorie supply. Still, in some cases, increases in food production have barely kept up with the annual rates of population growth of 2.3-3.0 percent.

With this scale and pattern of growth, and a minimum or moderate degree of institutional changes in agrarian structure, some growth benefits have reached rural people. This has been achieved through two main policies. The first is substantial public expenditure on investment in human quality and ability. Infant mortality was reduced by 40 percent on average during 1960-82, with Malaysia and Thailand recording reductions of 60 and 50 percent respectively. Life expectancy at birth has risen on average in the five countries by 25 percent, with Pakistan at the bottom of the scale (14 percent). Special family planning programmes in India and Thailand have contributed to these achievements by reducing the rates of population growth.

The second anti-poverty strategy instrument is the design and implementation of special welfare programmes and schemes. In India, for instance, these programmes include: the Integrated Rural Development Programme, Small Farmers' Development Programme, Drought Prone Area Programme, Rural Manpower Programme, Crash Scheme for Rural Employment, Food for Works Programme, National Rural Employment Programme and the Rural Landless Employment Guarantee Programme. Similar schemes initiated in other countries have been directed to poor and backward rural areas. Pakistan pursued a new policy line, institutionalizing the Islamic injunction on able families to

help the poor. Funds collected by local committees and banks are used for village social services and for direct payment to poor households. It was estimated that if this scheme were effectively implemented, it alone would help half the rural poor to rise above the poverty line by 1983/84. The scheme involves community self-help and income transfer among households without any burden on the Government or external resources. Another factor which played an important role in reducing poverty in rural Pakistan has been the migration, mainly of unskilled rural poor, to the Middle East. It was estimated in 1980 that 11.2 percent of the population had migrated and that total remittances were \$ 2056 million in 1981. This migration has reduced the pressure of labour supply in the agricultural sector where demand had been reduced by increasing mechanization. The inflow of overseas remittances has increased employment in the non-farm sector, particularly in the construction and service sector, which has led to increasing real wage rates in agriculture. However, given the present agrarian structure, it is questionable whether rural poverty can be reduced significantly.

Most of the welfare programmes listed above are based on the redistribution of non-land assets for income/employment generation. Where agrarian structural changes have been vigorously introduced, the benefits to the rural poor have been greater. This was the case in the state of Kerala in India, and in Thailand, where land frontiers have been opened up for cultivation. Overall, all 5 countries did initiate some land reform programmes, which were, however, ineffectively implemented. Consequently, land distribution remains highly unequal, a fact reflected in the land concentration index of 0.52-0.65. This concentration of land -- and of income distribution -- is much lower in Kerala and Thailand, which could be attributed to improvements in land distribution and rising real agricultural wages. Figures for these two countries are:

	Land Concentration index	Percentage increase in real wage rates of agricultural workers	Rural Poverty Level %
Kerala	0.64 (1966/67)		50.3 (1961)
	0.58 (1976/77)	60 (1961-81)	40.9 (1978)
Thailand	0.48 (1968)		43.0 (1968)
	0.46 (1978)	50 (1966-78)	34.0 (1978)

Source: Khan and Lee, 1983; and FAO data

Two additional factors have aided reduction of poverty in rural Thailand. The first is the massive investment in inter-regional and rural roads over the past two decades which has opened the subsistence economies of small farmers to trade via transport. The second factor is the substantial expansion in rural areas of non-farm activities, which provided households working in agriculture with about 40 percent of their incomes. This has expanded employment substantially during the slack season and reduced the impact of seasonality on the incomes of small farmers and landless workers.

The two fundamental poverty-alleviating policy instruments are the redistribution of assets, notably land combined with other means of production, and increasing investment in human capital as a productive income-earning asset. Other policy measures which redistribute the flow of income to targeted groups and areas include income and employment-generating programmes of rural development (such as food for work programmes, food subsidies and rationing). Two other types of policy measures -- participation in development programmes of the poor and their organizations, and macro-economic measures such as pricing policy, food security, and non-farm rural activities -- are the subject of the following two Chapters.

Redistribution of land and related means of production The country experiences indicate a strong association between poverty levels in rural areas and the magnitude of government policy intervention in the redistribution of land, and means of production. This association exists irrespective of average income level in the countries. China and Sri Lanka, two low-income countries, achieved low poverty levels through completely different types of intervention in their agrarian systems: complete agrarian transformation in China, and massive land settlement programmes, tenancy reform and welfare policies in Sri Lanka. Land reforms and labour investment in the state of Kerala in India, a low income country, has substantially reduced rural poverty. On the other hand, moderate land reforms in medium income countries like Pakistan, Indonesia and Malaysia were ineffectively implemented and inequality of income distribution and incidence of poverty were more prevalent. Landlessness is also high in these three countries. There is evidence of reduced poverty in Thailand, which expanded considerably the redistribution of newly developed land and mounted an impressive programme for non-farm activities in rural areas.

Agrarian reformers in Algeria, China, Cuba, Egypt, Iraq, the Republic of Korea, Nicaragua, Tunisia and Syria conceived poverty-alleviation strategies as a direct outcome of the

redistribution of land and other means of production and as an essential consequence of changing the power structure. These structural changes were conceived as pre-conditions for both economic growth and systematic development planning.

In most cases, the reformers favoured individual family holdings - giving them a wide range of land rights. This accords with their goal of greater equality in rural areas and increases income, land and family labour productivity above subsistence level, thus contributing to the alleviation of rural poverty. Evidence indicates an inverse relationship between size of holding, intensity of land use and its productivity. A recent analysis of 15 countries' experience concluded that where conspicuous labour surplus exists, the greater efficiency of small farms provides solid arguments in favour of land redistribution. Such agrarian reform would determine higher output, higher labour absorption and more equitable income distribution (Cornia, 1985). At a later stage of the reform process, some countries, particularly those with over-population pressures, have had to adjust and organize these individual holdings into larger operational units without changing property rights in land. In this way, the agricultural population supported itself until an increasing part of it was drawn into the non-agricultural sector. These organizational arrangements, combined with the expansion of non-farm activities in the reform areas, enabled reformers to utilize under- and unemployed labour for agricultural production and other capital creating activities. However, experience in the land reforms of West Bengal, India and recently in Nicaragua has shown that inadequate management or the lack of credit and technology leads to stagnation in growth of agriculture. In most cases, these organizational arrangements are implemented under different degrees of government control; the aim is to control agricultural surplus and accumulation. One of the crucial functions of agrarian reform is to stimulate an increase in food production and the supply of its appropriated surplus to urban areas and industry. In this way, agrarian reforms become an integral part of a large network of institutions within the rural economy and the national economy at large.

Effectively implemented agrarian reforms thus reduce substantially the high initial inequality in rural income distribution. They free the rural poor from exploitation and repression, and provide a means for modernizing agriculture with technology. This, in turn, ensures that benefits of growth reach most of the rural poor. Equity, growth and poverty alleviation can be achieved more rapidly through government policy interventions than through the "trickle down" of growth benefits

under market forces. Economic growth and political stability go together: agrarian reforms have prolonged the life of many regimes and saved several countries from destabilization.

Have agrarian reforms resolved the problem of landless agricultural workers? With the exception of communist countries where land ownership was nationalized and communal land tenure and production organization were chosen for the institutional organization of agriculture, landless agricultural households have often been excluded. There are several possible reasons: because of land scarcity in over-populated countries, governments have given priority to the redistribution of land to the actual tillers of the soil (tenants and sharecroppers); agrarian reform laws have compromised with the interests of influential landowners whose support was needed and for whom high ceilings of land property were fixed; governments conceived land settlement schemes to benefit landless workers, or have sought solutions outside the agricultural sector.

Investment in human capital Many developing countries with different levels of average national income per head have achieved increased life span, a considerable reduction in infant mortality, and a notable improvement in education levels, particularly among children. There is no reliable evidence on whether these improvements reached the rural poor and very poor at the same speed with which public expenditure has increased. Some scattered evidence, discussed in Part I, shows that there has been progress. If investment in human capital were provided by the state, education and health services were free and at the same time the poor had access to land and means of production, their skills and productive abilities would be considerably improved. This would thus contribute to the alleviation of poverty and to economic growth.

Investment in human resources through increased public expenditure on education, health and nutrition, does not conflict with achieving sustained economic growth, gross savings and investment. In most cases poverty alleviation has not conflicted with goals of maintaining a reasonable level of gross domestic saving and investment. This is contrary to the views of some orthodox economists, who hold that developing countries can only sustain reasonable levels of investment by reducing current consumption.

Redistribution of non-land assets for income and employment generating activities When a government is unable, for political reasons, to redistribute land and other means of production on the scale required to directly attack rural poverty, it may adopt alternative approaches which do not disturb

the power structure. These include the provision of credit, training and a minimum of infrastructural development for poor areas and groups of households identified as absolutely poor. The aim is to generate free or low interest credit, group participation and the transfer of technology to marginal and landless farmers, rural artisans and other very poor people. Examples of this approach are the large-scale integrated rural development programmes and projects in Bangladesh, Nigeria, India, Pakistan and Turkey. A similar scheme, which is directed mostly at serving landless workers, male and female, is the Grameen Bank in Bangladesh. These programmes are usually financed from public funds and foreign aid.

Even though their influence on national poverty is limited, these programmes can benefit large numbers of the rural poor in many countries, providing bureaucratic obstacles are overcome and they reach the right people. For instance, the Grameen Bank programme of Bangladesh served the rural poor in 2.5 percent of total villages with 62 percent of the beneficiaries being both male and female landless workers. Their income increased in real terms by about 32 percent over a period of two years when the per capita income of Bangladesh as a whole increased by only 2.6 percent. The repayment record was excellent with only two percent of credit receivers failing to repay. Most of the credit was used for non-agricultural activities (Hussein, 1984).

Most low income countries operate programmes which provide additional employment for the regular or seasonally unemployed on schemes for reclaiming new lands for agriculture, constructing rural roads, and building or repairing tile drainage and canals. They also aim to improve nutrition of the employed rural poor. The beneficiaries receive their payment partly in food and partly in cash. Through food for work programmes and national programmes for rural employment, particularly in overpopulated countries. As in the credit supply programme, the impact on employment and income raising of the rural poor has not significant impact on national poverty. Nevertheless, at local level, these programmes have raised the total income of the recipients, created needed infrastructure, trained workers in new skills and improved households' food consumption during the agricultural slack seasons when unemployment is at its worst. As these schemes are project-oriented, their impact will depend on how well the areas are selected and to what extent the schemes are directed at the identified beneficiaries. The impact on employment and skill formation will also depend on the extent to which temporary employment is sustained on a regular basis.

Targeting food subsidies for the poor Given the high proportion of their incomes which is spent on food, the rural

poor are highly vulnerable to high and rapidly increasing food prices. In Egypt, for instance, food subsidies account for approximately 30 percent of the monthly expenditure of poor households, significantly to calorie intake. However, general food subsidies for all households can be extremely costly. So governments have tried various ways of targeting subsidies to the needy households. One way is cross-subsidization, i.e. a subsidy of one basic food item is financed by a tax on another less needed or luxury item, which is usually consumed by the high income households. This approach, which has been tried in Egypt, Sri Lanka and Tanzania, enhances the income distribution effects of food subsidies. Another approach is to target subsidy benefits according to income (by excluding income-tax payers or owners whose land exceeds a certain area of land), according to employment status or geographic location, and by rationing the amount of food to be purchased by different groups of consumers. Family size is also used as an indicator but it risks encouraging increased procreation.

All these approaches, are however administratively demanding and can seriously affect the national economy. For instance, by subsidizing foods which are produced locally rather than imported, governments can change food habits against imported items; taxing export crop earnings to finance subsidies on imported food harms the agricultural sector. Overall, subsidies work best in the context of a coherent and consistent national price and food policy.

Aiming research and technology at small and marginal farmers Much of present-day agricultural research is carried out with little consideration of the needs of poor farmers. Farming technology perfected in advanced countries is often unsuited to conditions in developing countries, especially in areas of extensive poverty. Since many peasant farmers and nomads have been pushed into marginal agricultural areas by population expansion and land concentration, research should focus on hitherto neglected crops such as sorghum and millets for semi-arid areas, and root and tubers for the tropics. Similar attention should be given to small animals such as sheep, goats, pigs, camels and rabbits.

Localized research for different agro-climatic zones and soil conditions is now beginning to pay off in countries which have followed an agricultural strategy of breeding different varieties of specific crops beneficial to the nutrition, employment and incomes of the peasantry. Root crops for instance provide up to three times more calories per unit of land than rice and maize and should be promoted (FAO, 1977). Policy-makers and research programmers should see not only technological and

biological aspects of crops but also their social importance within the entire farming system. They should also be aware of the employment, nutrition, seasonality of production, small scale operations of low income farmers and land tenure relations. Vertical integration of farming activities in small scale and fragmented area holdings of land scarce areas is a substitute to land expansion through combining crop and livestock production and possibly fishponds.

Since livestock contributes significantly to the incomes of small farmers, nomads, and landless workers, research and policies should also concentrate on low-input technologies suited to their needs. In recent years, many countries have begun making efforts in this direction, implementing programmes covering elementary disease and infertility control, upgrading of local herds, improved management of fallow land for grazing, and the better utilization of crop residues and agro-industrial by-products. Attempts are also being made to benefit the small farmers by concentration on smaller livestock species (such as pigs, poultry, sheep, goats and rabbits) which can be reared with resources available to them. These animals are efficient converters of feed to meat, and are well adapted to the needs and production conditions of poor small farmers. Animal production has a potential role in agrarian reform programmes where the land/farmer ratio does not permit allocation of suitable agricultural land to all beneficiaries. In these cases, livestock provides an alternative source of employment and income. Nomads and pastoralists who eke out a difficult livelihood in many parts of Africa, Asia and the Near East also require special attention in agricultural development to help them optimize the output of rangelands by integrating livestock production with cereal and other crops.

One more point needs stressing. The innovations introduced by economists and technical agencies often tend to be based on the maximization of average yields/income. This usually is not the small farmers' main criterion. The small farmer is usually more concerned with food security. Average yields/income may also conceal one or two years of crop failure, which may mean starvation and death for the small farmer whose his normal diversified farming system may have protected against this.

This chapter has briefly explored three questions: Have countries which reduced absolute poverty and the degree of inequity sacrificed economic growth? What are the types of policy interventions and development circumstances which differentiated the level and speed in poverty alleviation among the selected countries? What are the implications for anti-poverty policy which emerge from these country experiences?

Broad conclusions are possible. First, the weight of evidence suggests that the degree of inequality in income distribution in rural areas is strongly associated with absolute poverty, irrespective of the national average level of per capita income and sustained growth rates, both total and agricultural GDP. The prevalence of high rural poverty is associated with a high degree of inequity. The level of rural poverty is lower in countries which reduced the population rates of growth over the last two decades to less than 2 percent per annum despite their rates of economic growth (Cuba, China, Republic of Korea, Sri Lanka).

A second point is that there seems to be no conflict between strategies which reduce poverty to a low level and increase public expenditure to invest in people, their education, health and skills, and those which set out to achieve high and sustained rates of economic growth. There is no evidence that countries which reduced poverty have sacrificed the investment and-saving share in their GDP. Third, agricultural growth alone, though necessary, is insufficient to reduce poverty to a low level. Also needed are institutional reforms, and primarily increased access to land and other means of production. The speed and magnitude of poverty reduction in rural areas are primarily determined by the scope of government policy interventions and not by the trickle down effects of market forces.

Fourth, two instruments can be considered fundamental to an anti-poverty strategy: the redistribution of land along with other means of production on a scale sufficient to substantially reduce inequity in agriculture and rural poverty and measures to increase investment in human capital as a productive income-earning asset. For both instruments, economic and political stability is essential.

Fifth, when the balance of political power in a country does not favour anti-poverty strategies with structural reforms in agriculture, other approaches are followed: large scale rural development projects, targeting credit, employment-generating schemes and food subsidies to backward rural areas and/or identified poverty groups. Evidence seems to suggest that the benefits are limited to certain localities and do not necessarily reach the very poor. Overall, the impact on poverty is limited in the context of national poverty.

Finally, it is important to remember that all these anti-poverty strategy approaches are designed and operate with power structure and set of social values.

Chapter Nine

PARTICIPATION OF THE RURAL POOR IN DEVELOPMENT

Over the last decade, "people's participation" has received wide recognition in literature and development plans, and in official statements by political leaders of developing countries. At the 1979 World Conference on Agrarian Reform and Rural Development (WCARRD) governments adopted a Declaration of Principles and Programme of Action which affirmed:

"that national progress based on growth with equity and participation requires a redistribution of economic and political power, fuller integration of rural areas into national development efforts, with expanded opportunities of employment and income for rural people, and development of farmers' associations, cooperatives and other forms of voluntary autonomous democratic organizations of primary producers and rural workers" (FAO, 1981b).

The Conference thus indicated that redistribution of power, participation and eradication of rural poverty were linked. The Programme of Action stated that national strategies to achieve rural transformation should be governed by policies for attaining growth with equity, redistribution of economic and political power, and people's participation. Such strategies should include equity and justice in the sharing of productive resources and the benefits of progress.

Empirical evidence from developing countries indicates that organizations of the rural poor (such as small farmers or fishermens' cooperatives, rural savings clubs and self-help organizations, women's groups, small farmers' water management associations, peasant movement organizations and rural health committees) are a powerful tool for poverty alleviation. They have contributed to growth in productivity and to the broad distribution of benefits. In many cases they have also influenced programming procedures and priorities in rural areas. It is this element of participation that is explored here because it implies changing power structure, or giving power to the poor. Two scholars who systematically studied these issues in 16 countries over the last decade concluded that "a vigorous network of membership organizations is essential to any serious effort to overcome mass poverty under the conditions that are likely to

prevail in most developing countries for the predictable future . . . Where such networks do not exist, efforts to introduce and assist new organizations are an important part of any government or private effort to promote broad-based rural development" (Esman and Uphoff, 1984). Experience in field assistance to developing countries has led ILO, FAO, WHO, IFAD and the World Bank to similar conclusions and it appears that the more economically homogeneous the participants in rural development projects/programmes, the greater the income benefits and the better their access to services.

Perceptions of the poor and of planners

Most efforts to promote participation are based on valid assumptions: that the involvement of the rural poor in the development process can unleash the untapped creative potential of a large number of people; that the promotion of their homogenous groups or local organizations can improve their bargaining position and their ability to deal with money lenders, merchants, village councils and government officials; that access to land and/or capital combined with technical knowledge of agricultural production can provide them with economic power. Accordingly, special programmes for the provision of credit and services to the local organizations of the rural poor have been expanding in many countries, with external assistance in most cases. Where land reforms and settlement schemes have been implemented, the land base, coupled with supportive economic and social services, has substantially enhanced the opportunities of the beneficiaries to participate effectively.

Whether participation is viewed as a means or an end in anti-poverty rural development, the actual performance of participatory rural organizations depends on complex factors. These include structural, social, economic, legal, political and administrative factors, which are not constant in their effects. Each factor has a causal influence on the performance of the rural system depending not only on the peculiar situation in each country but also the situation in the various rural communities across the country. Therefore, the impact of these organizations on rural development cannot be generalized. It varies according to the conditions under which the above factors interact over time.

The degree to which the rural poor influence public decisions is obviously subject to government (political and administrative) support and commitment to their participation. In designing a project or a programme, planners and programmers either have their own perceptions of activities and targets which have been determined in advance and which may not coincide with

those of the rural poor; or they involve rural people's local organizations in determining priorities and needs. In the former case, participation is viewed as a management tool to facilitate the accomplishment of a pre-determined project or programme, which the rural poor had neither a say in nor control over. In the second case, project priorities are decided according to the perception of those who are supposed to benefit and participate at grass-roots level.

Both approaches are efforts, within the prevailing political system, to improve the living conditions of the rural poor. In practice, it is possible to find a balance between both, depending on the responsiveness of government, technicians and bureaucracy at local level to the perceptions of the rural poor. In this interaction, a distinction should be made between the state local or official/political organs and organizations of the rural poor. The aim is to increase the power of the rural poor and to make them less dependent on influential owners of land and capital in rural areas. As they gain economic and social strength, the rural poor are then able to influence existing programmes with their own perception of priorities and problem-solving activities.

To illustrate this last point: small farmers in Pakistan were able to change the urban-based credit service provided by the country's Agricultural Development Bank to a rural-based mobile bank service reaching the poor directly in their villages. The bank's 1000 credit officers, who are agricultural college graduates, have developed personal relationships with the small farmers in some 2500 villages. The proportion of unrecovered loans to the total loan granted fell from 32 percent in 1979 to 9.5 percent in 1984. The loans to small farmers who work less than 2 hectares rose from 28 percent in 1979 to 54 percent in 1982; the percentage of non-tractor loans (tubewells, manual threshers) rose from 25 to 45 percent over the same period. The cultural background of the people was also taken into consideration. Being Muslims, they resisted payment of interest rates, so it was replaced by profit and loss sharing with the Bank. Starting in 1985, the Bank began recovering its lending and operating costs under the new system. Thus the programme design and lending policy of the Bank have been shaped according to the small farmers' interest.

Credit-based participation has also been developed among landless in Bangladesh. They possessed only their latent skills and physical labour and were considered by the institutions "unworthy" of receiving credit and participating in rural development. Finally, their perceptions and needs began to be understood by university scholars, planners and programmers at

both the Grameen Bank and the Ministry of Rural Development of Bangladesh. Organized in harmonious and informal groups or cooperatives, the landless farmers are now able to receive credit (about \$20 - \$50 each) which has helped to unleash their potential productivity and enhance their income and employment opportunities (Hussein 1984). This is particularly significant advance in a country where rural poverty is so extensive.

In both Bangladesh and Pakistan, participation was induced, i.e. initiated from outside the community of the rural poor. Indeed, the review of country experiences referred to earlier indicates that most participatory organizations for the rural poor have been formed because of outside initiative (by Government, universities, religious leaders, peasant movement institutions, non-governmental organizations, agricultural trade unions, international agencies and donor countries). Nevertheless, experience suggests that the resulting organizations represent the perceptions of both the initiators and the rural poor. Without this combination, the benefits accrued may not have been realized. Furthermore, in the process of gaining economic power, beneficiaries were able to influence and re-shape the agricultural banking system in Bangladesh and Pakistan. The question is whether their dependence on borrowing might weaken their perception of self-reliance. Available evidence suggests that the beneficiaries began using their savings for further income-generating activities, a trend which, if continued, might lead to less dependency on the lending institutions. This trend has also been noted in projects in many other countries, such as the Savings Development Movement among the rural poor in Zimbabwe. So while it has become fashionable to call external initiative for participation "top-down", in contrast to "bottom-up" grass-root initiatives, one can say that these innovative credit and savings programmes were a response to the poor's perceptions of their own needs.

The terms "bottom-up" and "top-down" initiatives are an oversimplified classification of perceptions; there is no distinct cut-off point between them. Land reform and settlement programmes, the ujamaa programme in Tanzania, family planning programmes benefitting rural women, and communal associations in the Philippines and India were all initiated by planners and programme designers in response to the interests of the rural poor. One can say that induced participation has incorporated realistically the felt needs and perceptions of the rural poor within the prevailing socio-political environment. Anti-poverty programmes at national level could be viewed as representing a balance of both perceptions, although at the village level the perceptions of the poor should be decisive.

Numerous examples of participatory action have emerged from a common interest in community improvement and joint action, the assumption being that collective action is more likely to yield successful results than individual initiatives. If they have a choice, the rural poor prefer to join informal, non-bureaucratic and non-statutory organizations of their own rather than formal statutory organizations such as agricultural cooperatives. This preference has been demonstrated in widely divergent rural societies as far apart as Nepal, Burkina Faso and Zimbabwe.

The poor prefer informed local organizations because they make production, distribution, accumulation and management technically simpler. They allow for less conflict of interest and more mutual trust, less authority of office and more face-to-face decision-making, less corruption, nepotism and political patronage. Participatory projects use credit for income-generating group activities. They also try to build up organizational skills, awareness of planning, self-reliance in implementation and monitoring of joint action, and ultimately have some influence on the existing system of public services.

Experience in several countries indicate that these principles have been successfully put into practice. Some of these participatory programmes started in two or three villages and have been extended successfully to a larger area. Examples include the Small Farmer's Development Project in Nepal, the Organizations of Social and Educational Assistance (F.A.S.E.) in the North-east region of Brazil, savings clubs among the rural poor, particularly rural women in Zimbabwe, the local Development Associations in rural areas of the Yemen and the communal irrigation groups in the Philippines.

Helping the poor to organize

It is not enough for governments and non-governmental organizations simply to create opportunities for the rural poor to participate in development programmes. It should not be assumed that the rural poor are capable of organizing their own associations. Because they have been excluded from the development process, have no organizational skills. All they know is what they feel they need. They simply do not know how to lobby for their interests or how to conduct meetings to voice their needs to local and district government agencies. This is why standardized government procedures for local organizations do not often succeed. Therefore agents of change (under different names, such as catalysts, animateurs, group promoters and extension agents) are needed to help the poor acquire these skills and make their own rules for their own organizations, instead of accepting those imposed from outside.

Experience shows that organizations of the rural poor usually succeed where internal leadership and voluntary membership based on trust and their own perceived needs, prevailed.

The personal qualifications, training and commitment of the organizers are vital to the entire process of participation. Village youths can be very effective, in this process if they are given adequate orientation, and are not biased in favour of their family or social class nor recruited by politicians with vested interests.

Sometimes organizers impose certain conditions and disciplines, such as making membership of cooperatives a pre-condition of access to credit and marketing services. But unless the beneficiaries themselves accept the rationale for this restriction, participation based on quasi-compulsory conditions cannot be sustained once an alternative becomes available. This is why a purely governmental approach, combined with political patronage of local organizations of the rural poor, has less probability of success than locally and voluntarily initiated informal organizations (Esman and Uphoff 1984, Hollnsteiner 1977).

If these locally initiated organizations are horizontally linked by genuine promoters, or vertically linked with other peasant organizations and agricultural trade unions, they can build their own social and economic power. Provided there is a national commitment to participation, the country's own social scientists and leaders of non-governmental organizations are the most suitable people to organize the rural poor. Foreign expertise cannot be a substitute.

Participation of rural women

Since women constitute one-half to two-thirds of the agricultural labour force in many parts of the developing world, their fuller participation in rural local organizations has several advantages. It may help to increase food production in which women often have a major role. Women's participation also allows closer contact and thus a more realistic dialogue between rural development planners and poor rural women.

Information on participation of farming women in rural organizations is limited but suggests that their rate of membership is generally low. In India, a country with 300,000 cooperatives, it is generally the male head of the farm household who joins the rural organization and women play only a marginal role. In both Indonesia and the Philippines, women's participation in important cooperative development schemes is

negligible; in Egypt and Yemen, custom and tradition has meant that membership of agricultural cooperatives is virtually the prerogative of men, although there is no legal bar to female participation. In Malaysia, women members of cooperatives were unable to influence meetings because "more vocal male groups" dominated decision making (Palmer, 1979).

A report on women in agricultural cooperatives has identified two principle types of constraints on full participation by women -- external factors, reflecting women's status in agriculture generally, and internal factors particular to participatory organizations. Among external factors, laws relating to land tenure affecting women's participation because membership of cooperatives is usually granted only to those with a land title; these are usually male farmers. Rarely do women receive title to land under land settlement schemes and, in fact they may actually lose land rights formerly held under traditional tenure systems. Even where the male household head is absent for long periods, such as in labour-exporting countries, women may not be recognized as de facto farmers. In addition, women long accustomed to economic and social subordination are easily discouraged from efforts to improve their status, especially when they are also uneducated and illiterate. Finally, the sheer weight of the rural woman's workload, which may include food crop cultivation, harvesting and processing, the fetching of fuel and water, as well as raising children, often effectively excludes them from interests outside the household. Of the internal factors, crucial were cooperative laws which tended to reflect male approaches (for example, in accepting as members only those with a title to land) and the orientation of cooperative programmes toward male interests (FAO, 1983i).

Despite these obstacles, however, increasing numbers of women are joining cooperative or pre-cooperative organizations, 1/ to increase income or to qualify for work loans. They are attracted to savings-and-loan cooperatives, credit unions and similar organizations. In a survey of women cooperative members in Nigeria, 40 per cent said they joined in order to improve their welfare and better their living conditions through higher incomes. The provision of savings and thrift facilities was the main reason advanced by another 20 per cent. In addition, some

1/ Their reasons are discussed in Report of seminar on enhancing women's participation in cooperative activities in South-east Asia, ICA, 1980; A. Bronstein, The triple struggle: Latin American Peasant Women, War on Want, London 1982; J. Bruce, Market women's cooperatives: giving Women credit, SEEDS, Washington, 1980.

women see membership of rural organizations as a step towards achieving more political and social power. In Nicaragua, members of market women's credit cooperatives said one immediate advantage of membership was a greater say in household decisions. Education is also seen as an important benefit: in India, it is reported that the daughters of members of the AMUL dairy cooperative, which includes a large number of women, are attending school and that education for girls is becoming more highly valued.

Governments and other bodies seeking to increase their participation of women need to take action in four main areas. They need to make changes in restrictive practices at legal, administrative and developmental levels; they must make changes in customs and behaviour that perpetuate these practices; the guarantee cooperative facilities for rural women; and provide educational and social programmes to enable women to participate effectively. There are hopeful signs that more and more governments are changing their policies. In India, for example, laws in some states now allow for the nomination of women to cooperatives' management committees; in Mauritius, a law stipulates that at least one woman be among the six members of the Cooperative Council. At international and national levels, cooperatives are establishing criteria for increased women's participation.

Although the level of participation in development by rural women remains disappointingly low in most of the Third World, there are several cases of successful organization which might serve as examples for other developing countries. In Vietnam, women's participation in farming cooperatives is considerable, and recent figures show that more than 60 per cent of cooperative labour is female, reaching up to 90 per cent in livestock breeding teams. It is estimated that the women produce 80 per cent of all farm products. The more advanced cooperatives have set up facilities for female members, such as nurseries and canteens, and there are some 7000 female presidents or vice-presidents of cooperatives. Cuba has given special encouragement to women to join cooperatives. Women's participation is said to have increased with the provision of village-level social services to relieve them of household chores. In Nicaragua 43 agricultural or small retail/manufacturing cooperatives were set up between 1972 and 1980 with female membership of between 50 to 80 percent. In addition, 15 marketing cooperatives were established with 90 per cent female membership.

There is evidence that well-organized women's organizations can exert influence on national policy-making. For example, the General Federation of Iraqi Women persuaded the government to enact laws in 1977 and 1978 which legalized divorce and remarriage, and gave women the same political and economic rights as men. The Sudan Women's Union has also succeeded in having several services established for women in agriculture.

Advantages to government of promoting people's participation

Participation of the rural poor through their own local organizations, benefits not only them but also the government administration and this dual benefit facilitates rural development for several reasons.

First, developing countries are constrained by limited budgetary resources and lack of trained labour. Therefore it is in their own interest to promote self-help and self-reliant organizations which mobilize savings, train indigenous leaders and foster youth activities in rural areas. The achievements of the Local Development Organizations (Hai'at Al Tatweer) in Yemen, the SFDP in Nepal and the irrigation users' associations in the Philippines and India are convincing evidence. Governments in developing countries are also saddled with overwhelming responsibilities (such as maintenance of irrigation networks, the building of rural roads, provision of drinking water and construction of village schools or clinics), some of which could be carried out more efficiently with the full participation of local organizations. In this way the organizations of rural people can use their accumulated savings and funds from government to develop their own communities, instead of seeing the accumulation syphoned off into other sectors.

Second, many governments have formulated rural development programmes with an "urban bias". Organizations of the rural poor can translate these programmes into specific actions which are relevant, simple, practical and straight-forward, responsive to their perceived needs and implemented with their broad-based support. An example: as part of the Yemen Arab Republic's Southern Upland Rural Development Project (SURDP), planners aimed at building 184 kms of new road, at a cost of YR 303,300 a kilometer, for the project area's 170,000 people. These people, who had apparently not been consulted, felt instead that they needed less sophisticated but much longer roads. On their own initiative, they built 3100 kms of tracks at a cost of YR 21,613 a kilometer, providing access to "a vast number of villages" (FAO, 1981c). A third point is that governments can benefit from rural organizations which act as intermediaries and channels of communication. Policy-makers need to know the adequacy of their

programmes; therefore, they need feed-back information. They also need to know how technicians and administrators are implementing the government's policies and programmes. The rural people's organizations can inform political leaders and district administrators whether these programmes are achieving official objectives and whether they are responsive to the needs of the rural poor. Tanzania and the Libyan Arab Jamahiriya have provided local mechanisms for this interaction. Popular organizations are thus able to send appropriate warning signals in cases of nepotism, corruption or malpractice by bureaucrats. They can also articulate their views on such issues as agricultural prices, daily wages, land tenure relations, the relevance of programmes to rural women in agriculture, and the delivery of agricultural and public services.

Fourth, government departments are usually multi-functional with responsibilities divided between many specialized technicians who operate separately at local level. Despite much talk about the need for coordination, it often just does not happen as policy-makers would like. Rural people's organizations can assist the government by transcending these bureaucratic boundaries and improving the delivery of services. Finally, the improved quality of life achieved through cost-sharing by rural organizations, coupled with the rural poor's increased productivity and income, would contribute to boosting the country's total product, as well as government revenues.

Decentralization and organization of government services for the rural poor

Participation and decentralization are interlinked because both lead to an increase in the capacity of local institutions to serve the needs of the rural poor. This is essential to the management of anti-poverty rural development strategies and programmes. The multiplicity of government services performed by several ministries and parastatal agencies should be coordinated and decentralized in order to reach and assist the rural poor. This is not a simple task for three reasons. Firstly, decentralization will depend on countries' development priorities, administrative structures and procedures and, more importantly, on the attitudes and motivation of civil service personnel who are mostly urban-oriented. Second, where concentration of land ownership prevails, decentralization of authority and greater control of financial resources at local level would reinforce the power of the already influential landlords and their allied local staff to the disadvantage of the majority of the rural people. Third, highly compartmentalized and powerful departments at central government level usually oppose any weakening of their power and control, and therefore

resist the emergence of a powerful local administration. Nevertheless, the key to effective decentralization is in political leadership that is committed to genuine rural development.

Once anti-poverty rural development becomes a priority, administration and management can be structured to achieve the objectives of an equitable distribution of income, increased food production and rural people's participation through their local organizations. This requires administrative reforms in programme management, primarily in decision-making and financial allocations. As the rural poor are mostly small farmers, tenants and landless workers, public services must be designed to reach them, increase their productivity, improve their health and educational status and give them the opportunity, as equal citizens, to express their opinion on the relevance of these services to their needs.

Increasingly, governments recognize that the motivation of field-level staff, who are actually in contact with the poor, can have a deciding influence on efforts to promote decentralization and participation. What factors are likely to enhance this motivation and, thus, the chances of success? Country experiences suggest that participation by small farmers and other rural poor can itself be a strong motivating factor for field-level functionaries. Also needed is good management of field programmes, appropriate delegation of authority to officials at lower levels, and greater participation by local managers in planning work programmes. Political commitment also helps to protect field staff from the adverse pressures of entrenched local level interests. In some cases, basic improvements are needed in bureaucratic procedures: improvements in coordination, the introduction of activity planning and centralized monitoring. Finally, staff motivation depends heavily on the quality of the staff itself. This means greater care in staff selection, improvement in service conditions, and more attention to training. Low quality of training is sometimes linked to cynicism and low motivation.

But it is neither the form nor the structure of local accountable organizations that really matter; for the effective implementation of anti-poverty rural development policy. It is the effectiveness of the administrative machinery in responding to the needs of the rural poor for agricultural credit, extension, marketing, irrigation, education, health, drinking water, roads and transport. From a field assistant in Bangladesh comes a typical remark: "It is with great difficulty that I contact the poor farmer and motivate him. I tell him how to adopt new agricultural methods; what fertilizer and how much to

use; when to water his crop. I also tell him how to get all this. Next time I go he tells me that he did not get anything; that he had gone from door to door, spent some money and a lot of time. The third time I go to his village, I avoid him." (FAO, 1984g.)

In principle, services to rural areas are the responsibility of government, but -- as stressed earlier -- governments are so overburdened with a diversity of functions that the contribution of local organizations of the rural people becomes essential. Thus most of the components of rural development cannot be planned, programmed and implemented from the central government. The task is complicated by the multi-dimensional nature of rural development, with several sectors providing services to the rural areas. These problems are multiplied by the involvement of many agencies and many socio-economic groups, which are not free of conflicts and contradictions, and by the insistence of donor countries or international financing agencies on setting up special organizations for the programmes they support (e.g. the integrated rural or agricultural development projects).

The number of organizations concerned with rural development is, therefore, substantial in most countries and proper coordination of their activities becomes essential at field level. This coordination is also required at operational and policy-making level. It has been tried in most countries by the use of a lead agency such as the office of the President or Prime Minister or a National Planning Office, Ministry of Rural Development or National Coordinating Committee of Ministries dealing with rural development. These mechanisms attempt to understand rural development problems and organization as a whole, considering their complex interrelationships. Rural development is one of society's major economic and social objectives and therefore it cannot be handled by a single department or even a single Ministry.

At district and local levels, an operational problem lies in the coordination and monitoring of the activities of specialized civil servants, such as agricultural extension workers, engineers, doctors, nurses and teachers, who resent being subordinated to a general administrative cadre officer. Tanzania's experience in decentralization is relevant here, illustrating how the representatives of the rural people can supervise the civil servants at local level. Following the government's decision in 1972 to decentralize its decision-making as well as administrative powers to the regions and districts, peasants' representatives decided on rural development programmes jointly with representatives of the various government departments at District Development Councils. The district

officials have to report on progress made in the execution of programmes. A study on this participation reported several incidents of maladministration and sometimes misappropriation of public funds as well as negligence during implementation, for which the bureaucrats are responsible. The public employers now feel that they are subjected to tighter controls from the local people (Maeda in Bhaduri and Rahman, 1982).

Bangladesh, China, Egypt, Ghana, India, Indonesia and Mexico provide other examples of how decentralization has served to realize rural development objectives. India's experience over the last two decades has many lessons to offer those concerned with enhancing anti-poverty rural development through the adaptation of complex systems of administration. Based on clearly defined anti-poverty development objectives set out in the successive National Development Plans, and in pursuance of Gandhi's philosophy of self-reliance at village level, the administration has been adapted to associate rural local institutions (Panchayat Raj) with decentralization. Long established and experienced revenue collectors at district level were converted into district development officers to coordinate the work of field level functionaries. A similar institutional organization was introduced at lower levels (Sundaram, 1984).

These institutions were given authority to plan and implement projects and schemes aimed at those below the poverty line (i.e. small, marginal and landless farmers and persons belonging to caste and scheduled families) to implement the special programmes for the lower income groups (small farmers programme, drought-prone areas development) and to cover all sub-sectors of rural development (agriculture, village and industries, minor irrigation work and food for work programmes). To enable planners and programme designers at block level to undertake rural development planning, the National Planning Commission set up a committee to draw up detailed guidelines. Block level planning was linked with a cluster of villages and with regional and state administrative level. People's organizations share in the planning process and programme design. Personnel engaged in rural development were also given special training and orientation to cope with local problems, to help to identify the rural poor and to design projects in conjunction with the rural people's representatives. In implementing development programmes for the rural poor, the administration at block and village level gives priority to economically backward districts with considerable development potential. It also favors those districts which face acute unemployment and under-employment, but have certain basic infrastructure or scientific and technological institutions which are already functioning. In the final analysis, the effectiveness of this

comprehensive decentralized system in alleviating rural poverty will depend on the adequacy of administration at local level and on how the limited financial resources are allocated to promote both production growth and the distribution of welfare services.

This adaptation of administration to anti-poverty development is also a primary concern in Egypt. According to laws enacted in 1960, 1971, 1975 and 1979, provincial governors have been designated as the local representatives of the President of Egypt in the country's 26 provinces and are given status equal to that of Cabinet ministers. In the budgetary process, a greater share of state financial resources are gradually moving into the governors' control. The government's decentralization policy aims at shifting administrative and developmental authority from the central government in Cairo to the provinces, districts (markar) and villages (majlis al qarya), combined with the participation of elected representatives of the rural people. At the central level, the whole structure is administered and coordinated by the Council of Governors and the High Committee for Local Administration, comprising all Ministers involved in rural development. Both bodies are chaired by the Prime Minister.

Despite these serious efforts towards decentralization of administration since 1960, there are still cumbersome procedures in decision-making and allocation of funds, and the traditional power and control of the higher echelons of the government and the hierarchical attitudes of civil servants continue to be key obstacles to achieving the development aims of decentralization. Bureaucracy remains one of the main factors constraining wide and effective participation by the rural people in Egypt's anti-poverty drive.

It could be concluded from these experiences that the grip of government officials on power is not easily relaxed through legislation. Without moves towards decentralization, backed by strong and sustained political support, anti-poverty objectives will not be easily attained. Obviously, there is no uniform prescription for all developing countries. Adaptations will vary according to the realities of social and political dynamics as well as the perceptions of national leaders and the rural people.

Chapter Ten

OTHER POLICY MEASURES

Food Security and nutrition

As we saw in Chapter Two, it is certain categories of the poor, such as rural labourers or nomads, that suffer chronic malnutrition or starvation if their purchasing power suddenly fails. The poorest rural groups are permanently vulnerable to food insecurity, precisely because they have no assets to provide them a regular and adequate income or to sell in times of need. They are dependent on selling their labour in an exploitative labour market which is liable to collapse in times of crisis.

In view of these facts, the ultimate objective of "food security" is that of ensuring that all people at all times have both physical and economic access to the basic food they need. Food security has three specific aims: ensuring production of adequate food supplies; maximizing stability in the flow of supplies; and securing access to available supplies by those who need them. This will require specific measures on a wide front and at international, regional, national and local levels to improve the capacity of countries and people to produce or purchase food.

At an international level a number of measures can assist in expanding production in food deficit countries, balancing price policies and production incentives, and ensuring that the food exporting countries maintain an adequate flow of supplies on the world market. Measures to ensure the stability of food supplies at a global level include an International Grain Agreement with price and stock provisions, preferential price arrangements for low-income countries, and emergency food aid. Measures to improve access to food supplies in international markets would include improved facilities allowing poorer countries to cover higher food import costs and removal of trade barriers affecting exports. Food security can also be strengthened through regional cooperation over general policy issues including food prices, joint arrangements for food imports, information networks and warning systems, common food reserves and emergency food arrangements.

Measures taken at the national level have a more immediate impact on food security. Policies and programmes need to focus

on expanding food production by increasing the area sown to food crops, where appropriate, and raising yields, through the introduction of improved farming practices and inputs. Appropriate pricing policies and producer incentives are crucial. Also important are the development and transfer of improved agricultural technologies, marketing services, credit, and technical and management training. Drought resistant crops such as millet and sorghum should be promoted, as well as roots and tubers which can remain in the ground for long periods, to be harvested when required. More attention is urged to growing other minor grain, pulse and vegetable crops as these contribute to food security.

Growth of food and agricultural production should be compatible with achieving greater equity. Thus, particular attention should be given to improving the productivity of the small farmers and to increasing employment for the landless. Special measures are needed in most countries to ensure that women farmers have access to new agricultural technologies and services, and that female wage labourers are guaranteed employment, at equal wages with men for equal work.

The major challenge remains that of assuring access to available food supplies on the part of the whole population. There are two aspects to the problem, both of which stem from poverty. First, food insecurity and malnutrition are permanent conditions of the poorest groups in rural society and they can be abolished only by dealing with the root causes of poverty. Second, food shortages arise from natural and man-made disasters, or market fluctuations, but invariably hit the poorest groups hardest, so the basic task is once again to reduce poverty and improve the food security of the most vulnerable population groups.

These are a number of policy options, which can be adopted according to their acceptability in the different countries. The first involves building up some productive assets for the poor, through redistribution policies such as land reform. The poor can also be assisted to acquire assets such as livestock, agricultural machinery, transportation and through small loan schemes such as that of the Grameen Bank in Bangladesh which lends only to the landless. Second, poverty in general and food insecurity in particular will be reduced by deliberate policies and programmes which create additional employment for the poor and increase real wage rates. In the agricultural sector, jobs must be created in mixed farming, (including field and tree crops), livestock and fish enterprises, in additional cropping seasons, (especially with irrigation), by using plant residues and biomass in processing of agricultural products and in

agricultural services. Employment should be created in the non-farm sector also, in order to diversify the rural economy and provide seasonal work for agricultural labourers.

A number of social welfare measures can also increase access of the poor to food, but drawbacks must be kept in mind: they leave they support the existing poverty levels and inequalities within the society unchanged, may create dependency among the poor, and may be difficult to direct effectively to their targets (i.e. in some cases the poor are excluded from these programmes and many richer groups receive the benefits). The main welfare programme in most developing countries is subsidy of foodgrain supplies. In Asia, subsidized foodgrain supply programmes are implemented in Indonesia, the Republic of Korea, Malaysia and the Philippines but the supplies are not rationed. Schemes in Bangladesh, China, India, Nepal and Pakistan have modified rationing systems, while Sri Lanka operates a food stamps scheme. If subsidized food-grain supplies are not rationed both the poor and rich are eligible, and costs remain high, so that the most vulnerable groups with no effective market demand fail to benefit. It is estimated that a quarter of the households in Indonesia and the Philippines are unable to purchase their full grain requirements at the prevailing subsidized prices.

Systems of subsidized foodgrain supplies with modified rationing generally give preference to the poor. The largest programme is in India. Foodgrains are sold through 305,000 "fair price shops" open to anyone, except in five states where ration cards are issued on the basis of income and employment criteria. The rations vary between states, ranging from 2 kgs. per adult per month to 20 kgs. In 1983, 16 million tons of foodgrains, representing 15.7 per cent of total foodgrains in India, were distributed through this programme. In Bangladesh, subsidized, rationed foodgrains are distributed to priority groups. However, the rural areas which represent over 80% of the population received only 368,000 tons of foodgrains in 1982/83 compared with 647,000 tons distributed to the army, civil servants, large employers of urban labour and flour mills. In China, about 20 per cent of the total population (mainly urban and non-farming rural ration card holders) purchase their foodgrain supplies through government shops at subsidized prices.

While these schemes undoubtedly help the poorer income groups, there is a definite need for more accurate targeting of subsidized food supplies to the most vulnerable groups. In theory, Sri Lanka's food stamps Scheme is more easily able to benefit the poorest. Eligible households receive stamps, calculated on the basis of household income and family size,

which can be exchanged for rice, bread, sugar and kerosene, while unused stamps can be saved in bank accounts (Subbarao, 1985). About seven million people (nearly half the population) received food stamps in 1984 and 1.5 million households received kerosene stamps. In 1981 the government spent seven per cent of its total budget on kerosene and food stamps. Since the country has not yet set up a rigorous system to assess and monitor household incomes, there is scope for richer families to benefit through false declarations of income.

Most countries also have more limited feeding programmes, aimed at specific groups - generally for pregnant and lactating mothers and children but sometimes also for the handicapped or, as in Indonesia, settlers in the transmigration areas. Such programmes tend to have a number of shortcomings. First, if food supplies are distributed for home consumption, there is no guarantee that the group aimed at (e.g. children), actually benefit, given the fairly frequent maldistribution of food and other resources within the household. Second, while these food supplies are supposed to supplement the food of the poorest groups, there is no way of ensuring that they do not replace normal expenditure on food. Third, high administrative costs limit expansion of these programmes, especially in rural areas.

Most low-income countries also operate "food for work" programmes, which provide work for the regular or seasonally unemployed with payment partly in foodstuffs and partly in cash. The programmes generally involve public works projects such as road and canal construction, and forestry. Governments in disaster-prone regions generally have disaster relief units to provide immediate assistance to the victims of natural calamities to prevent starvation and disease. They usually also have various schemes to assist the rural population with seeds and other agricultural inputs, and to provide employment.

Several countries have also attempted to make nutritional considerations part of national development plans and policies. With examination and analysis of the nutritional implications of national plans concerning cropping patterns, supply of inputs, regional development, manpower planning and terms of trade. India, Botswana, Ethiopia, Lesotho, Fiji, Kenya and Ecuador are formulating national level nutrition policies, while Mexico, Central African Republic, Chile and Haiti have formulated national nutrition plans for guidance in field project implementation. In the case of Kenya, a section of the Fourth Development Plan (1979-83) identifies nutritional problems by population group, and then goes on to identify strategies and interventions necessary to resolve the problems. Kenya also established a Food and Nutrition Planning Unit in 1979, in its Ministry of Economic Planning and Development.

In specific area development plans, some countries are not giving attention to the possibility of improving nutrition by integrating nutritional improvement goals in development projects, rather than by isolated intervention. In addition to some of the countries already mentioned, Ecuador, Niger, Papua New Guinea, Indonesia, Bangladesh, Sierra Leone, Sri Lanka, Nepal and Somalia, are all integrating nutritional goals into specific area projects. In Haiti, a Food and Nutrition Unit has been established in the Ministry of Planning to assist planners to take nutrition into account in designing rural development projects and in introducing nutritional indicators into monitoring and evaluation systems.

Along with this new emphasis on nutrition, recent efforts have also been made by governments to monitor how current development policies and projects affect nutrition among the low-income rural populations. This concern has led to nutrition surveillance programmes being designed in Bangladesh, Cameroon, Kenya, Chile and Rwanda.

Pricing policies and income distribution

Improvements in income distribution are best achieved by redistribution of productive assets, notably land, or by progressive taxation, not by an instrument which influences the source of inequalities only indirectly, such as agricultural price policy. However, since price policy usually does have substantial effects on income distribution, it is important that it is structured so as not to reduce the income share of the rural poor.

The overall impact of a product price change on the rural population depends very much on the structure of farming. While the long-term effect of a price rise will probably be favourable in general, because of accelerated growth of the sector, it is by no means certain that all will benefit. Results will differ between fully commercial and relatively large-scale farmers, semi-subsistence farmers, subsistence farmers and landless agricultural labourers. Where the agriculture sector consists predominantly of small farmers, mostly owner-occupiers (as in much of Asia), an increase in producer prices will be spread reasonably evenly over most of the farming community. Another structure, characteristic of parts of tropical Africa, has smallholders mostly producing food and co-existing with large-scale plantations geared largely to the export market. Here changes in food prices will influence incomes of the majority of the small farmers to change in the same direction, leaving the pattern of relative incomes within small farming much the same. Incomes in the plantation sector will depend on the profitability

of export production which, in turn, will be strongly influenced by such government policies as exchange rates and commodity taxation (as well as the basic determinant of world prices). The incomes of the landless labourers are relative to incomes of owners or managers of plantations, and so are likely to improve only if their labour is unionized.

In the third structure, common in Latin America, modern commercial farming on a large-scale co-exists alongside semi-subsistence farming. Both groups grow basically the same crops but marketing, credit, extension and other services are geared to the commercial farmer. In this sector, price policy alone is likely to worsen the relative income position of the peasant sector and of the landless. A cheap food policy implemented through price controls or overvalued exchange rates will harm the already small cash incomes of the peasants and, by reducing the profitability of the commercial sector, lead to either lower wage rates or (through exchange rate distortions) to the import of labour-saving machinery.

How can price policy be used to stimulate agricultural growth but at the same time avoid worsening the income distribution in rural areas? To begin with, price policy needs to be associated with structural and other measures which tackle equity questions more directly. This is because producer price support as such can in no way be adjusted to reduce the income inequality which it necessarily generates -- its benefits are positively related to marketed surplus. The proper instrument for reducing inter-farm inequality of marketed surplus, which is rooted in the inequality of landholding and ownership or access to other means of production, is the redistribution of these assets. If changes in land ownership are not feasible, the government can improve tenancy arrangements to improve the access of small farmers and landless labourers to economic sized units of land and introduce greater safeguards against dispossession of rented land. It can also try to orient extension and research and the supply of high-yielding inputs in favour of small farmers.

These measures can be most effective if used in conjunction with price support and stabilization measures. Income improvements provide an immediate and visible economic incentive for small farmers and landless labourers to make use of such measures as are newly available, or available on more advantageous terms. Price measures also need to be designed and applied so that they benefit not only the larger, commercial farmer but also the small farmers with limited quantities of output for marketing. Small farmers should, as far as possible, be covered by price supports for commodities they sell and they

also need to have adequate access to and honest treatment by staff at purchase points. Although the larger farmers would still benefit more, the small farmers' would have a rise in absolute level of income and would benefit still further from price policies directed to those crops grown predominantly by them.

Finally, policymakers should bear in mind one important aspect of macro-economic measures bearing on equity within agriculture. If there is widespread unemployment or underemployment, a rise in the cash incomes of most small farmers would have a sizeable multiplier effect on the whole rural economy, particularly around the smaller cities and their satellite towns and villages. Off-farm employment opportunities for surplus agricultural population, would be improved and probably wage levels also. The benefit of improved equity should not be overlooked in estimates of cost-effectiveness of farm price support policies.

Expanding employment opportunities and improving skills

Non-farm rural activities As already indicated in Part II, the capacity of agriculture to absorb the expanding labour-force is limited in those countries where the rural poor's access to land is restricted and where inadequate institutional arrangements and inappropriate policies for the poor prevent increase in the intensity of land use, and stability of agricultural production.

Until access to land is improved and the urban-industrial non-farm sector is able to draw underemployed small farmers and agricultural landless workers away from farming, the creation of employment opportunities in rural non-farm activities is one measure for alleviating rural poverty. The rural poor in the so-called market economies have followed one or more of three strategies for survival: they supplement their farming incomes from other activities (services, public works, home-based small scale production) without changing their location; they migrate, either temporarily or permanently, to other rural areas where the demand for agriculture or non-agriculture labour is higher; migrate to urban areas in their home countries or abroad, mostly for non-agricultural work (in construction, services, agro-industries, etc.). Although development planners have shown concern over the rapid growth of urban population, less attention was paid to the importance and potentialities of the non-agricultural labour force in rural areas. These workers now constitute about 30-40 percent of the total rural labour force, a proportion which has doubled in 30 years (1950-1980) in most of the developing countries and in only 20 years in China (1950-1970). Evidence indicates that landless and very small

farmers earn on average 40-60 percent of their household income from non-agricultural sources within rural areas.

Once they recognize the importance of non-farm rural activities in contributing to employment and output growth, governments should adopt national development plans which incorporate these activities as an integral part of anti-poverty strategies in rural areas. Plans and related programmes should be based on a full understanding of capital and training requirements and of infrastructure and market conditions, (including demand for products and services and the link between production and market centers) and should ensure that profits realized from these activities are recycled locally rather than being transferred away from rural areas by middlemen. They should also distinguish between categories of non-farm activities (household-based and factory-based). The beneficiaries of these planned, non-farm rural activities should be clearly identified, by sex, income and location.

All these considerations are fundamental for a broad anti-poverty strategy and development policy for the diversification of employment and occupational patterns in rural areas. This diversification is a transitional stage in rural development, associated also with growth and improved income distribution within agriculture, which stimulates increasing demand for non-food goods and services (such as transport, trade, construction and repairs). Many countries have recognized these links and included non-farm activities integrated rural development schemes, or cooperatives and other local organizations. For instance, in Egypt, Iraq, Mexico, the Philippines and Syria, cooperatives promote small-scale agro-industries in agrarian reform areas, while in Ecuador the National Commission CEBCA initiated during 1980-84 some 130 non-farm activities in rural areas, creating employment for more than 6250 landless workers. India's Sixth Development Plan envisages a 50 per cent increase in employment in village industries, from 13 million workers in 1979/80 to nearly 18.5 million in 1984. In 1979 India's handloom products and other handicrafts amounted to almost a quarter of total export earnings.

Central planning in China facilitated the integration of agricultural development and rural industries in communes. Handtools, biogas, fertilizers and consumer goods such as garments, wheat noodles, sewing machines and biscuits have been produced on a viable scale and in desirable locations. In rural areas, industrial and construction enterprises account for about 80 per cent of the gross income of all communes and brigade-run enterprises. These enterprises employed two-thirds of the

agricultural labour force. The gross income per worker was 2830 yuan in industry and construction and only 1040 yuan in non-industrial enterprises (Griffin, 1984).

In agrarian reform areas of Mexico, about 2000 landless farmers were engaged in a wide range of communal enterprises involving woodwork, construction, tourism and fishing. Under the Programma da Inversiones para el Desarrollo Rural (PIDER), local small-scale industries were established with people's participation to produce wheelbarrows, shovels, axes, woodwork, cheese and clothes, all needed by the local community. The government provided assistance in training and electricity. The aim was to help the rural poor to raise their incomes and improve their skills without migrating. Eighty per cent of the beneficiaries were women (UNIDO, 1978).

All these examples of non-farm rural activities were realized within an integrated policy of institution-building, skill formation, the provision of transport facilities and electricity, and regulations protecting products in the market. This type of infrastructural development is vital in remote areas where the poor live.

One more point needs emphasis. In developing a strategy of rural non-farm employment, the choice of the type of non-farm activity and the product should ensure welfare gains for the landless, small farmers, and the poor. For instance, evidence from Bangladesh shows that household-based rice husking offers more employment and income for the poorest rural women than factory-based rice mills. The poorest households would be better off if organized in groups and given a little operating capital for small-scale and household-based paddy processing. The choice of the type of non-farm activity and product should be determined, therefore, by the social characteristics of each rural area. The poorest of the poor have to be the central focus of these programmes in their initial stages, taking into account the seasonal nature of labour employment in agriculture. The poor, whether landless or small farmers, would not relinquish their main occupation until more permanent and secure non-farm activities become available. This transitional stage would later lead to dependence on non-farm rural activities, such as grain milling, woodwork, tailoring, cloth making, repair services for farm equipment and food processing.

Rural works programmes supported by food aid can also generate benefits for the rural poor and allow their participation. For example, in India the 1978-79 food-for-work programme

reportedly significantly increased employment and income for all the selected beneficiaries. Of the total beneficiaries, 50.6 per cent were agricultural labourers and 19.7 per cent non-agricultural labourers. In Bangladesh, it was estimated that landless peasants and small farmers who worked for six weeks on a nationwide unemployment relief scheme earned 55 per cent more over the period than they would have normally earned.

But rural works programmes also create certain problems. Ideally, individual projects within these programmes should be conceived by efficient local organizations which can then mobilize people, often from several villages or districts, for their implementation. Such organizations may not exist in many rural areas. In addition, it must be admitted that programmes, while increasing employment opportunities for landless labourers, may also strengthen the hold of the rural elite if resources are channelled through organizations under its control. The elite's advantage can be minimized only by the creation of active participatory institutions for the poor.

Since the nature of rural unemployment or underemployment is basically seasonal, rural work programmes ought to consist of activities which can easily be postponed during peak farm seasons. The shortage of labour in agricultural operations may not only adversely affect crop output and thereby increase food prices (which hurt the landless and near landless), but also accelerate the pace of labour replacement by agricultural machinery.

New skills and technology Given opportunities and means, small farmers are no less progressive than large farmers in adopting technologies for increasing production. Considering they are such a high proportion of landholders, there is great potential for them to substantially contribute to increasing the production of food and industrial crops, as well as their share of its benefits: under any socio-economic system, a policy to achieve these goals will remain ineffective if the small farmers' needs and perceptions are not understood and if institutional arrangements favouring their interests are not provided. There is ample evidence to prove these principles.

Although small farmers are illiterate, they are rational and efficient. Their rate of repayment of credit is very high because their traditional values, stress economic survival. They do take the risk of using new technologies in irrigation, crop cultivation and livestock production, provided these new ideas are introduced to them by researchers, extension workers and agricultural technicians through the participatory approach discussed earlier. However, many national programmes for

research, extension, credit and the introduction of new irrigation techniques are designed and implemented in isolation from the needs of the small farmers who are supposed to benefit from them.

Programmes for the transfer of technology should therefore be relevant to the small farmers' own dynamic farming systems and their institutional environment. Without adequately providing for these institutional requirements, technology transfer will remain an empty slogan. Researchers may make scientific history, but the application of their findings might lead to unemployment and a further inequitable shift in the distribution of income. Application of technology is not only a function of physical-biological factors. Those who promote technological advances in agriculture should be fully aware of their implications for the poor.

Concern over increasing the productivity, employment and incomes of small farmers must constitute the foundation of agricultural research and technology extension. To be relevant, research and technology extension should be more closely related to small farmer perceptions and applied with their participation. Let us illustrate this concept in practice with a few examples from some countries.

Priority was given by Mexican and Kenyan national planners to accelerating cereal production, especially among the majority of small farmers who produce for subsistence with traditional methods on two hectares and less. In the Mexican state of Pueblo and in the Kakamega district of Kenya, the plan was to double the maize yield per hectare through the use of superior hybrid seeds, fertilizers, plant spacing and, in Mexico, crop insurance. The institutional approach was to coordinate the efforts of specialist researchers, extensionists and credit supply institutions, with direct communication with the small farmers' groups or organizations. In both cases, the extension agents found that the rate of participation by the small farmers had stagnated and only 20-30 percent of the expected number of farmers had adopted the high yielding maize variety. In response, the conscientious agricultural extension workers carried out survey with participation of the farmers, and assisted by an orientation course at the University of Chapingo, Mexico. The survey found that the Mexican small farmers wanted to inter-crop beans with maize, while those in Kenya wanted a shorter cycle and shorter stalk maize (which required less fertilizer), and the intensification of the use of their small plots. The results of the survey were examined by researchers who, after two to three years of farm experimentation, accepted the farmers' wisdom. In the Mexican case, they found that while

intercropping would reduce the maize yield by one ton per hectare, it gave a yield of one ton per hectare of beans. Besides being very high in protein, beans brought in twice as much income per ton as the maize. As the existing credit and crop insurance procedures were against inter-cropping, both the researchers and extensionists succeeded in modifying them to correspond more realistically to the small farmers' needs. The same occurred in Kenya to enable the farmers to diversify their crops. Thus, the wisdom of the small farmers had convinced the "experts" to modify their original plans, turned the government extension agents into farmers' agents, and helped adapt the extension system to the farmers' real needs.

In Indonesia and Bangladesh, technology extension was realized through small farmers' cooperatives and informal functional groups of 10-15 members. Under Indonesia's AAETE scheme 1,700 groups of small landowners, tenants and share croppers were organized involving about 18,000 beneficiaries by 1984. In Bangladesh the scale is much larger, with 7.1 million small farmers involved, representing about 39 percent of the total farmers in rural communities. By regularly attending the farmers' meetings, extension workers are able to understand the small farmers' problems and needs in technical production matters. They also select contact farmers to serve as intermediaries in technology transfer. This approach was facilitated by the reorganization of six specialized agencies into one Department dealing with extension, the establishment of functional research-extension link, such as those we have seen in Mexico and Kenya, and the integration of the Ministry of Rural Development and its boards (BRDB) at village level with the agricultural extension department of the Ministry of Agriculture.

The World Bank's "Training and Visit" approach, which has been followed in several countries, emphasizes intensive on-farm visits by well trained, full-time extension agents combined with on-farm demonstration of improved agricultural practices including use of fertilizers. At government level, this approach requires a unified agricultural development system and a built-in monitoring system using information collected regularly. The small farmers in the Corum-Cankiri district of Turkey hold on average 3.5 ha. (14 percent have less than one hectare) and their holdings constitute 73 percent of the total area. At village level, an agricultural assistant lives and works directly with the farmers, while at district level subject matter specialists provide them with the special technical knowledge. Technology extension is linked with credit supply and those who have no title to land have been organized in credit cooperatives. The agricultural assistants help the illiterate small farmers in the filling-in of forms for credit and the use of this credit.

Technological changes include the adoption of wheat/barley high yielding varieties, the supply of certified seeds, the introduction of lentils and chickpeas in the crop rotation pattern, the application of frost-resistant legumes, the provision of livestock feed-concentration mainly for milk cows, and the introduction of artificial insemination. Over the period 1976-1984, yields of wheat and rice increased by 80 to 86 per cent, the forage area by 166 per cent and milk production by 71 per cent in the Corum-Cankiri district (FAO 1984h).

These country examples suggest some elements for improving the skills and productivity of small farmers. Agronomic research should be relevant to smaller farmers' agricultural priorities and be functionally linked with extension services; extension agents can also become small farmers' agents in dealing with institutions delivering agricultural services; practical on-farm demonstrations under normal farm conditions can have a great bearing on farmers' responses to technology transfers; periodic surveys and collection of data should involve small farmers in order to monitor progress and modify research and extension methods in accordance with rising needs and changing farming conditions; technical staff should be trained, or re-trained, in responding to small farmers' reactions to new technologies.

While it is easier to select village leaders or progressive farmers and supply them with heavily-subsidized technology for demonstration purposes, it defeats the welfare objective of participation by small farmers and the improvement of their skills. Similarly, it is easy to concentrate research, extension and input supply on a single crop. But this too represents a danger to the equitable sharing of the benefits of technology transfer because small farmers would be deprived of extension services and credit supply for other crops of their integrated farming systems. The selective approach is also incomplete if it does not include socio-economic aspects. Even in research centres which have established this link, socio-economists are a tiny minority among the purely agronomic scientists whose plant genetic research usually dominates such programmes.

In anti-poverty rural development, employment generating activities and a sound package of research, extension and credit would effectively benefit the poor. In delivery of these services, the main thrust should be well-defined, well-managed and coordinated programmes which allow them to participate and share in the benefits of technological advances in agriculture.

Opportunities for youth and young farmers Most of the world's young people live in developing countries, and the majority - 66 percent, or 480 million - are rural youth. They

make up 32 percent of the developing world's total rural population. Thus, we are not speaking about a tiny minority but of a large mass of people, a potentially valuable human resource if nourished, well-trained, and in possession of the skills and abilities required for development.

However, at present there is a general lack of recognition of their role and poor understanding of their potential contribution; they are illiterate; lack relevant educational and training opportunities; there is high unemployment or underemployment; and increasing migration to urban areas. Rural youths are dissatisfied with existing training opportunities which are usually geared to advancing students up the academic ladder. The quality of education in rural areas is lower than in the cities. Young people in rural areas need practical, functional literacy skills. The question is how can the needs and potential of rural youth in general -- and of young farmers in particular -- be effectively addressed in national and local development plans and rural development programmes? How can opportunities for these young men and women be created for their purposeful participation?

Given opportunities, organization and support by their parents, their governments and NGOs, the rural young can contribute significantly to their households and their countries in both agricultural and non-farm activities. To give them the recognition they need, speciallydesigned programmes should involve them as "para-professional" extension workers, as assistants to veterinarians, and as family planning and health specialists. If well trained in group work they can become grassroots leaders in rural areas, capable of communicating with authorities and serving their communities. ILO, FAO and a number of non-governmental organizations, including agricultural trade unions, have developed special programmes, training material, handbooks and exchange visits. UNESCO has also developed programmes for functional literacy.

The creation of non-farm activities for rural youth is important for those forced to abandon schooling. Such activities include tractor-driving, the maintenance of farm tools and machinery, construction of small fishing boats, the salting and drying of fish, processing of skins and hides, housing construction and the repair of domstic equipment. These skills are becoming scarce in rural areas.

Employment opportunities in farming are more problematic than non-farm activities for two reasons: first, limited access to land reduces the capacity of agriculture to absorb youth; in addition, small farmers and landless parents are reluctant to

have their sons and daughters trained in farming practices. Decisions in rural households tend to be taken by elder men and parents who often believe that agriculture is not a subject requiring classroom training. Time spent in training is regarded by the landless as lost wages and by small farmers as lost daily labour on the land. This is a social and economic problem that agricultural extension agents and local rural organizations can help to resolve by convincing parents and their children of the advantages of vocational training in cropping techniques, irrigation practices, poultry and animal breeding, keeping farm records, controlling diseases and parasites, storing and marketing of products, and other aspects of modern agriculture.

There have been some successful attempts to train young men and women in these fields and to improve at the same time their basic reading and writing skills (as well as childcare and home economics skills for girls) ^{1/}. There are also examples of country programmes designed to involve rural youth in cooperatives, land settlement schemes, training camps geared to employment, and youth clubs which conduct training and debates on social and political matters. These types of efforts can alleviate the frustration of rural youth and counteract their tendency to break away from rigid rural societies in which their views are neither solicited nor considered. Youth programmes succeed when they are purposeful and can offer something practical. They also need public funding, vigorous leaders and the active support of the regular agricultural extension staff. Above all, they require a change in the attitudes of parents towards education and training in modern farming and their appreciation of the value of non-farm skills. A nation's investment in opportunities for rural youth should generate a high return.

Opportunities for rural women Substantial evidence exists that rural women are very active in agriculture, and that in many developing countries family survival is one of their major responsibilities. Even so, planners and policymakers have, in the past, paid insufficient attention to improving rural women's farming skills and promoting their other income-generating activities. Usually, programmes "for women" concentrated on their roles as mothers and homemakers, thus limiting their efficiency and productivity beyond the home. The need for special assistance

^{1/} Some of these efforts are reviewed in "Extension, Proceedings, and Other Services Supporting Small Farmers in Asia", from a seminar organized by FAO and the German Foundation for International Development, November 1972.

for women becomes obvious when we consider the increasing number of female heads of households, refugees and seriously disadvantaged women in landless families, particularly in Asia.

General guidelines for women's programmes have evolved since the mid-1970s. They form part of a forward-looking strategy which seeks to promote rural development and food security by emphasizing women as food producers and income-earners. This means attention to women's roles and needs in all aspects of food production, concerted research into women farmers' responsibilities for food staples, and the design and implementation of appropriate supportive action, especially in training, extension and credit. The intention is to help rural women conduct their responsibilities more efficiently and to substitute more productive activities for less productive ones. An integrated approach is called for, with attention to population issues, including family size and spacing, fertility, infant and child mortality, mother and child health, as well as nutrition.

These programmes, which operate in all areas of rural social and economic life, cannot be identified, planned and implemented without accurate documentation and analysis of women's contributions. Since little information on this subject exists in most developing countries, action-oriented programmes are often preceded by programmes of research into such questions as the role of women farmers in food systems and the division of labour by sex and activity (i.e. by crop, animal, or type of fishing). For instance, the project "Women in Integrated Farming" in Democratic Yemen has produced baseline data on the division of labour both in agricultural and non-agricultural sectors. Data collected was to be used to recommend ways and means of reducing women's workloads, of increasing their participation in agriculture and of promoting other income-generating activities. All project staff are women (UNDP 1985).

It has been found that the success of special agricultural programmes also depends heavily on whether or not women farmers have adequate access to land. Therefore, programmes need to build on land reform legislation, provided it preserves women's existing rights and awards them land title or equitable shares. Two smallholder projects financed by IFAD in The Gambia have shown that it makes good economic sense to allocate newly-irrigated land to the women who traditionally farm it. The women have produced record rice harvests and the projects could become a model for the country's irrigated rice development. Also important to increased food production is women's access to draught power, a special problem in countries where, because of male emigration, women must perform heavy farming tasks. Typical programmes provide draught animals to poor households or help in providing tractor hire services.

Significant increases in women's productivity and earnings also depend on their degree of access to services, especially extension, credit and group institutions. These services should be readily available, flexible and attuned to the special requirements for products women are most likely to produce. Women have traditionally been neglected in programmes for education, training and extension in agriculture and rural development. Information on the use of land, improved animal husbandry, the economics of alternative production and the possibilities of marketing, is still unavailable to the vast mass of farming women. Some countries, such as the Philippines, Thailand, Lesotho and Egypt have implemented programmes for training female extension workers as a means of reaching women farmers. The research project in Democratic Yemen, referred to above, also aims to prepare future activities for the training of female extension agents and their integration into the national extension system. Other countries, seeing the formation of a force of female extension workers as a long-term task, have adopted temporary alternatives, such as the training of female paraprofessionals (in Mali), the training of village women to start their own demonstration plots (Zaire), and the channeling of extension through women's groups (Bangladesh).

Training programmes for rural women must cover the broad spectrum of rural women's activities, - in the home, in the marketplace and in the fields. In Haiti, for example, women are involved in food processing, small-scale commerce and the raising of small animals, besides working as agricultural wage labourers. There, a special project for the integration of women in rural development, launched in 1983, seeks to increase their productivity and establish women's groups to facilitate training. Field staff, almost entirely female, was conducting courses in food production and storage, gardening, nutrition, and the construction of water-tanks and latrines. Under a special programme in Indonesia, 20,000 rural women have been trained in leadership skills, poultry-raising, fuelwood planting and basic environmental sanitation (UNDP, 1985).

Since women have much more limited access to bank loans than men, an important element in expansion of their economic opportunities is the re-orientation of credit services. Special credit programmes should aim to channel credit to women by removing restrictions which tie loans to land title, basing eligibility instead on farmer performance and reliability. The form credit takes, i.e. either capital or inputs, should be determined according to women's needs and repayable in kind or instalments. With access to credit supply, rural women can expand their productive activities. Under Nepal's Small Farmers Development Programme, most loans to women have been for

livestock-related activities, with repayment rates of close to 100 per cent and high returns on investment, even in the absence of animal production training among the women. In Haiti, a project for delivering small loans to support women's economic activities has reportedly been successful. About 200 beneficiaries have received loans of up to \$100, which were used for commercial ventures, storage of agricultural produce, and home improvements. Only nine women were unable to repay their loans.

It is recognized that group loans have several advantages: they reach the poorest women, who would otherwise be ineligible, reduce borrowers' and lenders' costs, lessen the incidence of loan defaults and facilitate technical assistance. Some programmes have helped to set up women's self-help credit/savings groups. The Grameen Bank in Bangladesh organizes small, homogenous groups, each consisting of five women, which identify their own enterprises. Loans are repaid in small weekly amounts; compulsory savings and contributions to an emergency pool are an integral part of the programme. By 1985, more than 43,000 women had taken out loans totalling around \$500,000 with profits averaging 35 per cent. As a result, the women have reported higher family income and improved health. There are also several examples of international efforts to design institutional credit for women. The United Nations Voluntary Fund for Women considers applications for revolving funds for women's groups; the African Regional Credit Association (AFRACA) is cooperating with FAO to develop and implement a series of sub-regional projects for women's agricultural credit and banking.

Because women are traditionally prime participants in agro-forestry production systems, special programmes for women in forestry are also being pioneered in developing countries. Studies have found that rural women are the prime users of forestry products such as fuelwood, wild foods and fodder. They are primarily responsible for wood collection, and often for the initial establishment and tending of the wood stocks around their villages. Special programmes set out to enhance women's roles in forestry by providing them with equal opportunities in education, training, and employment. These programmes are usually based on research into such aspects as the supply and demand for rural and urban fuelwood and charcoal, their marketing and transport, and the efficiency of fuelwood for domestic purposes.

In the developing world's artisan fishing industry, rural women also play an important economic role. Special programmes for these women are based on research to identify first the full extent of and constraints on their involvement in production. Programme measures include steps to incorporate women into the

planning process, the introduction of appropriate fish-handling technology, and on-site training courses and extension. Fisherwomen also need training in management techniques, better access to credit and improved marketing facilities. A pioneering programme has been initiated for women in fishing communities around the Bay of Bengal in India. These women are in charge of shore-based fishing operations, including fish handling, processing, distribution (through auctioning) and marketing, as well as net-making. Pilot projects in small villages are designed to help women organize for savings and credit, social services and income-generation, with lessons learned being incorporated into similar programmes for women in other developing countries.

Chapter Eleven

THE ANTI-POVERTY ROLE OF FAO

Representatives of 145 nations and 80 international agencies and intergovernmental and non-governmental organizations, attended the conference at FAO's Rome headquarters. The World Conference on Agrarian Reform and Rural Development (WCARRD) and the programmes and policies it inspired, marked a turning point in development thinking. Called in July 1979 by the Food and Agriculture Organization it was a response to growing concern over the desperate plight of millions of people living in poverty in the world's developing countries. As the leading international agency dealing with food and agriculture, FAO believed it time for a comprehensive re-appraisal of the ends and means of rural development. Addressing the opening session, FAO's Director-General, Mr. Eduoard Saouma, spelt out the enormity of the challenge facing the international community. "Let us not forget," he said, "that 'agrarian reform' and 'rural development' are not only names. Behind these abstractions lies the reality of hundreds of millions of men, women and children lacking food, health, education, employment, shelter, dignity. Our mission is to rescue these marginalized millions of the Third World from literally crippling poverty, hunger, sickness and ignorance."

Perceptions of rural development before WCARRD

The founding and early work of FAO Long before WCARRD and at least a decade before the founding of FAO, the world's scientists and statesmen had begun to deepen their understanding of the essential links between adequate nutrition, agricultural development and economic growth. During the 1930s, advocates of what was then called the "marriage of health and agriculture" argued that a large portion of the world's population was malnourished and that food production should be expanded to meet nutritional requirements. The thinking of these pioneers was summed up in a League of Nations report, which concluded: "The malnutrition which exists in all countries is at once ... a challenge to men's consciences and an opportunity to eradicate a social evil by methods which will increase economic prosperity".^{1/}

^{1/} "The Relation of Nutrition to Health, Agricultural and Economic Policy" (1937)

The idea that nutritional aims could be met through advances in farming, along with the conviction that international cooperation was the basis of progress, led US President F. D. Roosevelt to call a Conference on Food and Agriculture, in Hot Springs, Virginia, in 1943. In setting up an interim commission for the creation of a new international agency on agriculture, the 44 nations represented at the conference declared their belief that "the goal of freedom from want of food, suitable and adequate for the health and strength of all peoples, can be achieved".

When the First Conference of the Food and Agriculture Organization opened in Quebec on October 16, 1945, FAO's constitution set out clearly its member nation's priorities. They were "raising the levels of nutrition and standards of living of peoples under their respective jurisdictions; securing improvements in the efficiency of the production and distribution of all food and agricultural products; bettering the conditions of rural populations; and thus contributing to an expanding world economy". Thus, the welfare of rural people was central to FAO's purpose from the very beginning.

To work towards those objectives, the Organization was to carry out field programmes of technical advice and assistance to the agricultural community in developing countries; to collect, analyse and disseminate information; to advise governments on policy and planning; and to provide governments with the opportunity to meet and discuss food and agricultural problems. FAO set up a Rural Welfare Division in 1947, designed to give attention to rural sociology, cooperatives, credit and rural home economics. Four years later, when the Organization transferred its headquarters to Rome, it created units to deal also with agricultural extension, education, research and the administration of rural institutions, and published (in collaboration with the UN Economic and Social Council and the ILO) the first report on "Progress in Land Reform".

By the 1960s, rising disquiet over the threat of hunger in the developing countries spurred several FAO innovations. One was the launching of the Freedom from Hunger Campaign/Action for Development to help non-governmental organizations channel funds to small community-level projects benefitting the poor directly. Another was the establishment by FAO and the UN of the World Food Programme (WFP) in 1962. It began operations the following year, and used food donated from food surpluses in two ways: to aid the victims of famine and other natural or man-made emergencies, and as part-payment to workers on projects aimed at improving economic and social infrastructure, mainly in rural areas. A third innovative development was the organization by FAO and the

UN, in association with the ILO, of the 1966 World Land Reform Conference, which discussed land reform and tenure, credit and rural peoples' organizations. It reflected a growing awareness of the relationship between successful land reform and economic development in general and laid the foundation for broader and more comprehensive perspectives on agrarian reform and rural development which took shape in the 1970s.

Increasing concern for the rural poor At the end of the 1960s, governments were requesting more FAO assistance to counter the worsening plight of small farmers and the rural landless. Two factors had contributed to the relative failure of growth-oriented agricultural development: improved technologies for crop production were simply not reaching poor farmers, who might be sick and illiterate, or "unworthy" of credit; and programmes based on the provision of one input only -- such as improved seed or better marketing services -- usually benefitted only the more affluent farmers, at the expense of those who had little access to productive assets, notably land.

Recognizing the need for an integrated approach to rural development, FAO convened in 1971 the first international symposium on agricultural institutions for integrated rural development. This was followed by a series of regional expert consultations which reviewed the experience of some 50 countries in rural development and made recommendations on future policy orientation the design and implementation of Integrated Rural Development Projects. In 1972 FAO initiated the Asian Survey of Agrarian Reform and Rural Development (ASARRD), an innovative project which brought together a wide range of people -- peasant farmers and fishermen as well as policymakers and planners -- to identify and solve development problems. Field-testing of their findings began in 1975 with the launching of several projects (later to be known as the Small Farmers Development Programme) in Bangladesh, Nepal and the Philippines. Increasing concern over the pace of rural development and agrarian reform was also evident in the Sixth Report on Progress in Land Reform, published in 1974. It covered the period 1968-74 and brought out clearly the relationship between land holding patterns and the overall structure of rural society and emphasised the importance of equitable distribution of resources as a prerequisite for economic and social development. The report concluded that genuine agrarian reform was the basis of rural development.

FAO later established a Human Resources, Rural Institutions and Agrarian Reform Division, dealing in the major areas of agricultural education and extension, development organization and institutions, land tenure and agrarian reform, and rural women's activities. At the same time, Governments and other

agencies and organizations in the United Nations system were becoming more concerned with rural development issues. They expressed this concern at a series of world meetings called during the 1970s, including the World Food Conference (1974), the World Conference of International Women's Year (1975), the World Employment Conference (1976), the Water Conference (1977), the Conference on Desertification (1977), the International Conference on Primary Health Care (1978).

While the organizations within UN system saw the problem from different standpoints, the outline of an integrated approach to rural poverty was forming. Many agencies contributed to the evolution of development strategies aimed at alleviating poverty. The ILO pioneered the view that development required not only economic growth but the satisfaction of humanity's basic needs; FAO introduced the concept of "food security" - the guaranteeing of food supplies for the undernourished through the establishment of national food reserves, crop production monitoring systems and improvements in infrastructure. UNESCO identified the need for equal educational opportunities and for the greater allocation of resources for basic education and job training for adults. The World Bank emphasised the aiming of development assistance towards the poorest rural groups; WHO saw poverty and underdevelopment as major factors affecting health, while UNICEF concentrated its activities on undernourished children and the educationally deprived in the poorest countries. The creation in 1977 of the International Fund for Agricultural Development (IFAD), with a mandate of providing assistance to the developing world's peasant farmers, was another important step in international efforts to overcome the problems of rural poverty and food deficits.

All these agencies began working together in the late 1970s as members of the Task Force on Rural Development of the UN's Administrative Committee on Coordination (ACC), set up in 1976 after a request from ECOSOC. FAO's key role in rural development was recognized when it was appointed in 1978 as the Task Force's lead agency.

The seriousness of the problems facing the rural poor were starkly accentuated in 1979 with the release of FAO's comprehensive study "Agriculture: towards 2000", an analysis of agricultural trends based on data from 90 countries containing 98 per cent of the developing world's population (excluding China). Due to rapid population growth, the study concluded, agricultural production in the developing countries would have to increase during the 1980s and '90s by as much as it had over the previous 12,000 years of human history. These countries have to produce or import two-and-a-half times more food by the year 2000. At the same

time, the developing world was having increasing difficulty in meeting its meets. Overall, the increase in agricultural output during the 1970s barely matched that of the 1960s and was slowest in the poorest countries. The growth rate of Third World agricultural exports had fallen to 1.8 per cent a year, compared to 2.3 per cent during the previous decade, while agricultural imports were growing at the rate of 6.6 per cent. The number of severely undernourished in developing world was approaching 500 million. Clearly, it was the poor who were bearing the brunt of these negative trends.

With the sobering findings of "AT 2000" before it, the international community approached the close of the decade in a state of alarm over the plight of the rural poor. The seeds of a new approach to rural development and poverty alleviation, planted over the previous two decades, finally bore fruit at the World Conference on Agrarian Reform and Rural Development on July 17, 1979.

WCARRD

FAO's Director General Eduoard Saouma opened the eight-day World Conference on a note of hope: "This period may be the turning point in the long struggle against hunger and malnutrition." In its review and analysis of agrarian reform and rural development since the mid-60s, FAO found that while developing countries had recorded impressive economic progress, food production increases masked huge disparities in living standards between rural and urban areas, between the rural rich and poor, and between developed and developing nations. It estimated that between 1975 and the turn of the century, the agricultural workforce would increase by 100 million and total rural population would rise from 2060 million to 2890 million. Without a stronger commitment to accelerated rural development, the overall situation could only worsen in a relatively short time as pressure on land increased and developing countries became ever more dependent on food aid and imports.

To eradicate rural poverty, FAO said, both developed and developing world governments had to correct three serious imbalances: in rural structures, in national development policies, and in international relationships. On rural structures, the report said that rural underdevelopment and poverty were linked to inequitable distribution of land and water, to landlessness, tenant farming and share-cropping, and to the lack of agricultural services for small farmers and nomads. National development policies often discriminated against the rural sector in the provision of investment, employment opportunities and social services; the urban industrial bias in

development plans had led to unfair pricing policies and the decapitalization of rural areas. On the international dimensions of the rural poverty problem, the Organization believed that while development strategies emphasizing industrialization and exports had helped increase productivity and foreign earnings, they had also added to rural poverty. With this analysis, FAO was refuting agricultural development models which gave priority to economic growth with only indirect benefits for the poor. Its new development concept was summed up in the words "Balanced Growth with Equity and Participation", and its aim was the transformation of rural society to ensure that the vast potential of science and technology was not dissipated in a wasteland of backwardness, poverty and social unrest.

The Conference then adopted a Declaration of Principles, a conceptual and moral framework dubbed "The Peasants' Charter". The Declaration states that "poverty, hunger and malnutrition retard national development efforts and negatively affect world social and economic stability". It recognizes that "past development efforts and programmes have largely failed to reach and adequately to benefit the rural areas", then outlines guidelines and principles for future action. The Programme of Action charts a course to guide nations in their programmes of agrarian reform and rural development. It calls on governments to fix specific targets for achieving self-reliance in food production, the reduction of rural poverty and the elimination of severe undernutrition before the end of the century. It asks them to mobilize public and private resources for rural development; to decentralize decision-making and promote people's organizations and to undertake to collect on a regular basis quantitative data on rural income, nutrition, public services, wages, interest rates and rents, and distribution of productive assets.

The Programme identifies specific areas for action at national level: national planning for growth with equity; wider access for the rural masses to land and other natural resources and to agricultural inputs, markets and services; people's participation in the institutions and systems which govern their lives; the integration of women into rural development; the rapid development of non-farm rural activities and employment opportunities; the creation and expansion of education, training and extension services in rural areas; greater economic and technical cooperation among developing countries; and action to ensure that foreign private investment in developing countries is consistent with WCARRD and overall economic development objectives.

The World Conference also acknowledged the direct responsibility of FAO in elaborating a new international strategy for agricultural and rural development. It charged FAO with the task of helping member governments implement the Programme of Action and called on all appropriate international organizations, under FAO leadership, to assist countries in undertaking systematic monitoring of agrarian reform and rural development, to expand technical and planning assistance to developing countries, to help mobilize public and private investment in rural areas, and to analyse and disseminate information relevant to rural development.

Anti-poverty action since WCARRD

The World Conference saw the first agreement between developing and industrialized nations on a strategy for agrarian reform and rural development and on a set of policy measures designed to implement it. WCARRD anti-poverty principles were endorsed soon after by the United Nations General Assembly, ECOSOC and the governing bodies of other UN agencies, and at FAO staff and resources were mobilized to assist implementation of the Programme of Action. Since then, FAO has taken action on several fronts in pursuit of WCARRD's objectives.

Monitoring poverty alleviation After WCARRD, governments made efforts to revise their rural development strategies, in order to create new programmes for the poor. To support these efforts, FAO has concentrated on strengthening their capability in rural development/agricultural planning and on helping governments to identify target groups, to devise efficient "development machinery", and to periodically re-evaluate progress made.

In many countries, rural development planning has been handicapped by a lack of data on the social aspects of underdevelopment. To help to build up the data base needed for effective monitoring of progress in alleviating rural poverty, FAO has launched a "socio-economic indicators" programme, with 25 "core" indicators drafted in collaboration with other UN agencies and international organizations. Governments are invited to use them in the collection and analysis of data on nine general development issues, including poverty reduction and growth with equity through people's participation. For low-income countries which cannot afford the expense of systematically compiling socio-economic data, FAO has prepared a simpler approach for monitoring poverty at a national level through the sampling of children's nutritional status and other broad indicators. This work was initiated in Somalia in 1982/83.

While the socio-economic indicators programme helps measure the impact of rural development programmes at national level, other techniques are needed to monitor progress in individual projects. To this end, FAO, IFAD, the World Bank and other agencies of the ACC Task Force on Rural Development have collaborated in the drawing up of guiding principles for measurement of project impact on the living standards of the poor, on rural women, on nutrition and on the environment. FAO is also working on a series of checklists designed to help planners design projects which benefit poor rural women.

FAO also organizes Inter-agency WCAARD Follow-up Missions. These give senior government officials from developing countries the opportunity to review with senior experts from FAO and other UN agencies the overall course of their rural development strategy. Such missions have helped, for example, to reorganize ministries and institutions dealing with rural development in Ecuador and provided advice for agrarian reform programmes in Benin and Cape Verde. A follow-up mission to Mozambique in 1984 resulted in a number of proposals for the decentralization of planning and the strengthening of the family farm sector through training and integrated development.

To further assist governments to transform the broad recommendations of WCARRD into appropriate national policies, FAO has issued guidelines on the implementation of the WCARRD Programme of Action, on the integration of women in rural development, on the design of projects to benefit the rural poor, and for the creation and strengthening of people's organizations. The Organization also provides planning support (- in the form of direct advice or training for national planners) - to governments who wish to build administrative machinery to serve small farmers.

Overall progress made by developing countries in eliminating hunger and eradicating poverty is analysed every four years by the FAO Secretariat. Its first report, presented to the FAO Conference in November 1983 and later published under the title Development strategies and the rural poor, found that access of the rural poor to land, to inputs and services remained a crucial issue. Despite impressive economic growth in some countries, it said, the incidence of absolute rural poverty remained intolerably high.

Anti-poverty orientation in FAO programmes Through its Field Programme, the organization is combining practical training and education with technical components in activities designed to incorporate disadvantaged groups, such as peasant farmers, women and rural youth, into the development process. It is also

Table 11.1

Allocations for Direct Anti-Poverty Activities in FAO's Programme
of Work and Budget (PWB) (in U.S. dollars millions)

A) Regular Programme	78/79	80/81	82/83	84/85
1. Rural Development	11.973	16.274	20.505	23.789
2. Nutrition	5.832	7.601	10.254	12.384
3. Artisanal Fishery Production	831	1.078	1.404	1.773
4. Forestry for Rural Develop- ment	492	1.490	2.489	3.125
5. Rural Development TCP 1/ Projects	-	3.070	6.192	6.433 2/
Sub-total	19.128	29.513	40.844	47.504
 B) Extrabudgetary				
1. Rural Development	57.412	70.718	65.987	98.822
2. Nutrition	9.671	6.819	8.113	5.438
3. Forestry for Rural Develop- ment	-	7.235	3.045	12.294
Sub-total	67.083	84.772	77.145	116.554
 C) Regular Programme and Extra- Budgetary				
Total direct anti-poverty activities	86.211	114.285	117.989	164.058
Increase (1978/79 = baseline)	100	133	137	190

Source: Director General's Programme of Work and Budget, FAO data

1/ Technical Cooperation Programme

2/ Estimate for 1985

implementing pilot programmes which aim to create new patterns for development projects. During the biennium 1984-85, FAO implemented 573 projects aimed at promoting rural development throughout the developing world.

A review of FAO programme budgets during the period 1978 to 1985 (Table 11.1) reveals a sharp increase in funding in support of rural development, nutrition, artisan fishery production and forestry for rural development. Overall, funding from FAO's Regular Programme, its Technical Cooperation Programme and extra-budgetary resources for these anti-poverty activities almost doubled between 1978/79 and 1984/85 from \$ 86.2 million to more than \$ 164 million. Most of the funding for anti-poverty activities in 1984/85 - some \$ 129 million - went to rural development, with \$ 17.8 million going to nutrition, \$15.4 million to forestry and \$1.7 million to artisanal fishery production. In addition, several FAO technical divisions include anti-poverty activities in their programmes for food security, socio-economic indicators, agro-industries, pricing policies, agricultural planning, minor crops and livestock for small farmers. All these rural development activities are coordinated by the Organization's Inter-Departmental Committee on Rural Development which, on instructions from the Director-General in 1983, also appraises the extent to which technical divisions have re-oriented their activities toward WCARRD concerns.

In its rural development programmes, FAO follows the WCARRD approach - the poor themselves be involved in the planning and implementation of developments that affect them. Since 1979, the Organization has helped to pioneer new models for participatory development through special programmes providing initial support to grass-roots organizations 1/. The basic idea of these participatory programmes is to help the rural poor decide for themselves on the kind of development assistance needed to raise their living standards. The programmes centre on employment-generating activities, emphasising principles of self-organization and self-reliance. They enable people's organizations at local level to become more effective in receiving and using agricultural inputs and services at village level, and stimulates links with district and national rural servicing agencies.

1/ These include the Programme for People's Participation in Rural Development Through Promotion of Self-Help Organizations, the Small Farmers Development Programme, and Community Action for Disadvantaged Rural Women.

In 1984, a total of 12 participatory action projects were underway, most of them in Africa. Under FAO's 1984-85 field programme, 18 projects were prepared in support of government efforts to organize small farmers and the landless poor into participatory associations. The projects are carefully monitored by the beneficiaries themselves, and a number of local workshops have been organized to review progress. In support of cooperatives for small farmers, FAO has developed the Appropriate Management System for Agricultural Cooperatives approach, an integrated package of technical services to small farmers organized around production, processing and marketing of a single commodity.

During the biennium 1984-85, FAO made considerable progress with activities for assisting rural women. Sixteen projects concerned exclusively with rural women, and 25 incorporating a women's component, were operating with increasing support from donor countries. Among these projects were several implemented and directed towards rural women living in particularly adverse conditions, such as widows, female heads of households, migrant workers and women refugees. The projects helped them to identify activities for their benefit, including food and animal production, credit and marketing, re-settlement schemes and refugee camps. For example, plantation workers in Sri Lanka have established village-based rural centres and identified projects aimed at reducing their domestic workloads, improving health and nutritional status in their families and increasing their savings and income. As well as providing valuable information on how women participate, these projects also allow greater coordination among supporting government ministries and NGOs. A new series of field projects for rural women is being funded by donor countries under the umbrella programme Women in Food Systems, created in 1983, with projects in Ethiopia, Jamaica, Lesotho, Sierra Leone and Zimbabwe. These projects usually aim to strengthen rural development support services for rural women and thus increase family food production and food security.

Through its extension, training and education programmes, FAO aims to assist countries in developing the human resources of rural areas, facilitate the adoption of research recommendations and help small farmers use modern inputs. This is a major area of FAO assistance: during 1984 alone, extension, training and education were components in 256 field projects, with most activities being carried out in Africa. Activities included the building up of training capability in the Third World through technical cooperation between developing countries. Between 1983 and mid-1985, some 43 extension and training projects had been formulated, including one for the setting up of two agricultural

demonstration centres in China. In a number of countries, large-scale multi-disciplinary projects were helping to strengthen agricultural extension services to farmers.

A major goal of FAO's anti-poverty strategy is to increase the impact and efficiency at field level of agricultural education programmes. Through a series of case studies on innovative, efficient and cost-saving programmes, combined with an expert consultation on curriculum development for agricultural schools, the Organization hopes to draw up a series of guidelines for teaching programmes. FAO has conducted studies on rural youth in several countries to define problems and needs, and in 1985 was establishing a communication network among rural youth programme leaders in developing countries and preparing a reference manual on working with rural youth. The Organization also helps developing countries in the formulation of policies on young farmers, the exchange of information and the development of teaching materials. In the area of agrarian reform and settlement, a number of FAO projects in operation in 1984-85 were helping governments, including those of Pakistan, Malaysia, Nepal and Tanzania, to establish systems to monitor progress. Other projects were assisting in the settlement of landless and disadvantaged rural people in Ethiopia, Indonesia and several West African countries.

Within FAO departments, anti-poverty principles have been incorporated into the technical assistance provided to member governments. The Agriculture Department designs programmes for crop production, livestock, pest control and management of natural resources to meet the needs of small farmers. Emphasis is also placed on the growing of crops used by the rural poor and on the development and transfer of low-cost irrigation technology as part of the promotion of water users' associations. For instance, field projects for the development of small-scale irrigation networks are stressing the improvement of farmers' water management organizations.

FAO's Fisheries Department is now giving greater priority to small-scale fisheries and rural aquaculture, which account for about half the world supply of fish for consumption. Assistance to poor artisan communities was identified as a priority area in the Strategy for Fisheries Management and Development endorsed by the World Fisheries Conference, convened by FAO in Rome in 1984. The Department is helping to improve the living standards of poor fishing communities through the supply of basic services at village level, through job creation programmes and integration of fishing into crop and livestock production where necessary. FAO also helps governments to identify and prepare projects to set up community fishing centres, - centrally located facilities which

provide landing, handling and marketing infrastructure and channel delivery of credit and services to fishing people. Women's concerns are being integrated into a variety of fisheries activities, with several pilot projects being primarily concerned with women's access to credit and social services. Since fish is a source of animal protein for many rural people, FAO is also drawing on nutritional expertise to improve the quality of data on the contribution of subsistence fisheries to food supply.

Traditionally, FAO forestry programmes stressed good management of forests to produce timber, protect soils and regulate watersheds. Since WCARRD, FAO's Forestry Department has focused on ways of combining forest management with development for rural communities. Through its Forestry for Rural Development programme, the Department helps member governments plant fuelwood trees for local use, develop forest-based industries and promote the participation of rural people in decisions about the forests around them. The special programme, Forestry for Local Community Development uses extrabudgetary funding for projects aimed at meeting the basic needs of the rural poor for food, fuel and housing, through forestry activities. For example, FAO helps to introduce management systems to improve small-holder and communal forest production in arid areas, and to launch training for rural people in charcoal production and manufacture of wooden handicrafts. During the programme's first three years, 50 countries requested such assistance and 36 projects were undertaken. FAO has also launched a complementary "Forestry and Rural Energy" programme to develop energy resources in rural areas. Impetus has also been given to the role of women in forestry by focussing on their activities in this area. For example, some projects assist women in the use of efficient wood-burning stoves designed to save energy.

FAO believes the major cause of malnutrition is poverty and that nutrition objectives should be an integral part of projects for rural and agricultural development. It thus stresses the promotion of indigenous crops, the introduction of improved food processing technology, the supply of pure water, and the linking of food aid to development efforts. FAO is also helping countries to assess how their development programmes are likely to affect the nutritional status of the poor and to incorporate appropriate nutritional components in projects. It is expanding its nutrition programme by building a data bank permitting analysis of the relationship between nutrition and socio-economic indicators. In developing countries it is helping to set up national data bases and to strengthen national capacity in identifying and designing special activities to improve nutrition. The effectiveness of this work has been seen in the increasing number of national and sectoral development plans which refer to nutrition as a

"yardstick of development". In addition, FAO publishes training manuals on nutrition and is expanding its programmes for the training of national staff responsible for planning and implementing nutrition-oriented projects.

The Organization is also devoting greater attention to agricultural price policies, which influence prices actually paid by consumers and received by farmers and thus contribute to levels of food supply. It has made a major review of policies in 37 developing countries, aiming to increase governments' understanding of the importance of price policies and to indicate improvements in FAO's own programmes of assistance in policy formulation. A report, presented in 1985, analysed current directions in price policies and made practical suggestions for their formulation and implementation. FAO has also helped individual countries, such as Sudan and Yemen, to review their price policies and has promoted regional workshops in Asia and West Africa for the exchange of information.

FAO has considerably expanded its food security activities, to assure adequate food production, especially in low-income food-deficit countries, to improve stability of food supply and to guarantee access of the poor to those supplies by improving their purchasing power. Its Food Security Assistance Scheme has committed more than \$50 million to bolster food reserves, increase storage capacity and to build up marketing and information systems in developing countries. Many of these projects were originally identified after visits by FAO food security missions. In 1984 alone, a total of 41 food security projects, valued at \$31.7 million, were underway. This included development of an early warning system in Bangladesh, the setting up of mobile stock quality control teams in Mozambique, a grain storage network in Upper Volta, and the development of low-cost village mills in Zambia.

Joint Action The post-WCARRD approach to rural poverty views development as a highly integrated process in which technical and economic cooperation between developing countries is vital. It also urges greater cooperation between governments and organizations representing the rural poor. In addition, FAO promotes cooperation between developing and donor countries, facilitates the exchange of information about agrarian reform and development issues, and works closely with other UN bodies and non-governmental organizations, including agricultural trade unions.

To enable countries to examine the implications of the WCARRD recommendations for their development efforts, FAO incorporates discussion of the Programme into established

conferences (such as FAO regional conferences, held every three years) and sponsors meetings and consultations to discuss special topics. At regular intercountry consultations, FAO experts, member government representatives and NGOs have dealt with such issues as monitoring and evaluation, agricultural extension, administration to serve small farmers and women in development.

The Organization also sponsors inter-agency meetings at regional level, at which agencies share information about their agrarian reform and rural development programmes and agree on joint activities at country and regional level. FAO continues to serve also as lead agency of the United Nations Administrative Committee on Coordination (ACC) Task Force on Rural Development, which strives to coordinate the work of 26 UN specialized agencies in the area of rural development. The Task Force focuses on three main issues: joint action between agencies at country and regional levels, people's participation in rural development and monitoring and evaluation of progress made in alleviating rural poverty. Through its own yearly meetings, regular inter-agency consultations, its publications and its bi-annual newsletter, "Rural Development", the Task Force analyses development experiences and discusses guidelines to help countries to strengthen their anti-poverty activities.

An important advance in the implementation of FAO rural development programmes has been the establishment of autonomous, intergovernmental regional centres for integrated rural development, supported by contributions from member governments, FAO and other donors. Centres for Africa (CIRDAFRICA in Arusha, Tanzania) and Asia and the Pacific (CIRDAP in Dhaka, Bangladesh) are now functioning, and other centres are to open in the Near East and Latin America. The aim of the centres is to carry out research on disadvantaged rural groups, disseminate information, conduct seminars and training programmes and serve as focal points for networks of national rural development institutions in each region.

To increase the participation of the poor in development, FAO is cooperating with non-governmental organizations which represent them. A series of meetings with NGOs has helped to formulate several field projects and to enlist the support of donors. In Asia, FAO has assisted a coalition of NGOs to conduct workshops and surveys in pursuit of WCARRD objectives. Through its unit, Freedom from Hunger/Action for Development, FAO has also provided pilot funding for NGO projects and helped to secure longer term funding from other donors. The confidence NGOs have developed in FFHC/AD is in large measure due to the technical back-up provided by FAO -- for instance, FAO's small-scale irrigation group is working closely with NGOs in Africa. FAO

has also helped to mobilize \$2.7 million in NGO donor assistance for 42 projects during 1983 and 1984. Finally, many NGOs have observer status with the organization and participate in technical meetings.

As part of its efforts to promote people's participation in development, FAO is cooperating with agricultural trade unions in the developing regions. Since WCARRD, its activities have included a regional consultation with 32 African trade union leaders in Tanzania in 1984, and the publication in cooperation with the International Labour Organization, of a study "Standards On Rural Workers". It is also supporting efforts to increase the number of countries ratifying and implementing ILO conventions on rural workers, mainly small farmers, tenants and the landless.

Special Assistance to Africa The precarious survival strategies practiced by the rural poor in many African countries broke down completely in 1984 when, after three years in the grip of drought, farming communities across the Sahelian belt and in southern Africa were forced to abandon their land. Ensuing famines cost hundreds of thousands of lives in Ethiopia, Sudan, Chad and Mozambique. By mid-1985, a total of 21 African countries south of the Sahara were suffering severe food shortages requiring massive international assistance. According to FAO, the drought was simply the "final straw" for millions of rural people already reduced to living at subsistence level by a complex series of demographic, economic, environmental and political factors. In fact well before the drought began the Organization had begun concentrating its anti-poverty efforts in the region. FAO was involved, for example, in the drawing up of the agricultural chapter of the 1980 Lagos Plan of Action, which provided a comprehensive development framework for African governments. Despite these initiatives, however, the problems facing African agriculture -- including over-emphasis on export crops, neglect of the peasant sector, and pest plagues and animal diseases -- continued to worsen during the early 1980s.

In response to the food crisis, FAO expanded its field assistance programmes. During 1984 FAO was supporting food security measures in Cape Verde, Chad, Ethiopia, Guinea Bissau, Kenya, Liberia, Mali, Mauritania, Mozambique, Senegal, Somalia, The Sudan and Zambia. In addition, a Food Security Training Identification Mission visited 14 African countries and produced recommendations for a series of courses in grain marketing, accounting, logistics and management principles for national personnel. FAO is helping to set up a regional cereals unit for Sahelian countries and to develop a regional early warning system in Southern Africa.

In rural development, the organization has increased the level of its assistance to Africa south of the Sahara. During 1984, for example, of the 573 projects supported by FAO's Human Resources, Institutions and Agrarian Reform Division, 42 per cent were in Africa. These projects, in 40 countries, included development of extension services, land settlement schemes, the promotion of people's participation, support to agricultural cooperatives, and the integration of rural women in development. Technical support was being given to regional projects dealing mainly with education and extension.

At the FAO Regional Conference for Africa, held in Harare in July 1984, the Organization presented the results of an assessment of trained agricultural manpower requirements in the 46 countries, as well as a directory of agricultural education and training institutions in Africa. The meeting decided to launch a strategy and plan of action for agricultural manpower development in the region, aiming to improve curricula and teaching methodologies in technical schools and colleges. In addition, FAO organized six country-level workshops to identify training and extension materials for small farmers, rural women and youth.

FAO has given priority to Africa in its Inter-agency WCARRD Follow-up Missions. By mid-1985, such missions had visited Ethiopia, Cade Verde, Benin, Somalia, Tanzania, Lesotho, Uganda and Mozambique. FAO is also using extra-budgetary funds and its own resources to help several countries in specific priority areas. Activities include short-term practical assistance to training for rural development, the setting up of systems for monitoring and evaluation, and improvements in agricultural services delivery to small farmers. Technical cooperation between African governments is being promoted through the Centre for Integrated Rural Development for Africa (CIRDAFRICA), which has received FAO assistance.

To help raise nutrition standards, FAO has applied nutrition guidelines to development projects in least-developed countries of Africa as well as supporting nutrition education and training in many other countries. Under its special action programme, Forestry and Rural Energy, the Organization has mobilized resources for forestry projects in Senegal, Kenya and Sudan, in areas with major fuelwood shortages. The projects aim to deal directly with fuelwood problems while promoting rural development to benefit the poor. Under the Forestry for Local Community Development programme, projects were also providing small-scale assistance.

By mid-1985, a solution to Africa's food shortages seemed impossible without special measures for the rehabilitation of its ravaged agricultural sector. For this reason a Joint FAO/WFP Task Force, set up to report on the situation in countries affected by calamities, regularly issued summaries of proposals for projects to rehabilitate African agriculture and livestock. To mobilize funding in support of these vital measures, FAO Director-General Mr. Saouma presented at a meeting of donor nations in March, 1985 a \$ 108 million proposal for the rehabilitation of agriculture in 20 drought-stricken countries. The package included 194 projects designed to boost food production and lay the foundations for renewed economic growth. At another donors' meeting, held two months earlier, the Director-General outlined 49 emergency and medium-term rehabilitation projects for Ethiopia costing \$126 million.

Since its foundation in 1945, and particularly in the five years after the WCARRD Conference, the Food and Agriculture Organization's assistance to rural development has covered a very broad field. It has assisted in the design and implementation of innovative people's participation projects, provided advice to governments on agricultural development issues, promoted the exchange of information among developing countries, and stimulated cooperation with international agencies and NGOs. Measured against the massive problem outlined in other chapters of this study, FAO's anti-poverty work can be described as, at best, a small beginning. Undoubtedly, cutbacks in levels of investment in and external assistance to rural development in the Third World have limited the scope of poverty alleviation efforts. Despite these constraints, however, the Organization has made progress in promoting the objectives of WCARRD, and has demonstrated to developing countries and to international agencies alike the effectiveness of programmes, projects and policies for the eradication of rural poverty.

TECHNICAL APPENDICES

Technical Appendix I

Country Experiences in the Definition and Use of Poverty Lines

Kenya

Definition of poverty line: No poverty line is mentioned in the 1979-83 Plan. The World Bank refers to a poverty line "determined by the Ministry of Finance and Planning", as KSh. 2,000, presumably per household, but with no specification of the year. The Bank has identified a household poverty line of KSh. 2,000 per annum for rural populations, which approximates to a line proposed in 1980 based on nutritional considerations, at 1974 prices.

Use of poverty line: Existing data allow estimates of trends in poverty incidence only for smallholders in Central province and in Nyanza, who represented about 43 per cent of the smallholder population in 1974. In Central province, poverty incidence declined from 18 percent in 1963 to 14.6 per cent in 1974; in Nyanza, the figures are virtually identical (28.6 and 28.4) percent for the years 1970 and 1974. Compared to average, poor smallholder households have less land, use fewer inputs per acre, have lower non-farm incomes, lower levels of education and subsistence consumption, and achieve lower farm innovation. Only 4 per cent of the variation in household income could be explained by inter-provincial differences and only 10 per cent by agro-ecological differences. Sharper focus on Central, Nyanza and Western Provinces, which together accounted for 60 per cent of poor smallhold households in 1974, showed that Central Province has had a high degree of agricultural innovation, including a switch to cash crops, improved livestock, hybrid maize and a high level of purchased inputs. In Central Province, poor smallholders had less education, lower non-farm income and were much less innovative than the non-poor. There were little differences in farm size. However, in Nyanza, farm size was associated with income. The World Bank believed that education was a major indirect influence on total household income.

India

Definition of poverty line: India's Sixth Five Year Plan 1980-85 places high priority on poverty alleviation. The government has defined a poverty line based on calorie requirements differentiated by age, sex and activity levels, giving 16 classes in total. Separate rural and urban per capita daily requirements were worked out using the age, sex and occupational activity of the population in 1982/3. On average,

daily requirements were 2,435 K Calories per person in rural areas and 2,095 K Calories in urban areas. Using 1973/4 National Sample Survey data, it was calculated that on average, these requirements were met by households at monthly expenditure levels of approximately Rp. 49 per person in rural areas and Rp 56 per person in urban areas at 1973/4 prices. In the Sixth Five Year Plan, the poverty lines were updated to Rp. 76 and 88 respectively at 1979/80 prices.

Use of poverty line: The Plan projected poverty incidence of 50.7 per cent (260 million people) in 1979/80 and 40.5 per cent (224 million people) in 1984/5. It provided for poverty alleviation programmes such as the Integrated Rural Development Programme (IRDP) and the National Rural Employment Programme, as well as the Special Component Plan for the "uplift" of scheduled castes. The IRDP during the Sixth Plan period envisages a household approach to poverty alleviation, with agriculture extension visits to all families in an area at least once a fortnight and the timely supply of required inputs and credit. The principal components of the poverty alleviation programme are economic emancipation of the family, education of children and voluntary family planning. If the above programmes are effectively implemented, the number of rural poor would decrease to 166 million in 1984/5 (30 per cent of the rural population), the plan says. However, these optimistic projection.

Using the former poverty line of 15 rupees per person per month at 1960/61 rural prices as a starting point, plus separate poverty lines for states and the consumer price index for agricultural labourers for each state, it is estimated that the percentage of overall rural population below the poverty line fluctuated from 54 per cent in 1956/7, to about 39 per cent in 1960/1, to about 57 per cent in 1966/7 and to about 47 per cent in 1973/4. It is unlikely that the fluctuations were measuring significant change in the intensity of poverty over the period. The fluctuations appear to be related to agricultural output performance, with good years being associated with a lower incidence of poverty. There was, however, no clear upward trend in the incidence of poverty over the period.

The Philippines

Definition of poverty line: There is no official poverty line in the Philippines. The country's Wage Commission has set a "minimum earning requirement" for employees to maintain health and efficiency at Pesos 502 per month for rural areas and P. 542 for urban areas in 1975, while the Centre for Research and Communications has set a "starvation line" and a "decent living income" allowing for spending on household help, recreation and

dental care. The Development Academy of the Philippines has estimated the cost of a diet based on a simple recommended menu as P.7,123 per year (about P. 590 a month) for a family of six at 1975 prices. An "operational cut-off line" of P. 2,999 family income (presumably per year), used by the Ministry of Social Services and Development, is based on the 1975 Family Income and Expenditure Survey, which indicated that 30 per cent of the population belonged to households with incomes of P. 2,999 and below. Only about 4.3 per cent of national income accrued to these households. The World Bank estimated poverty lines as P. 827 and P. 1,103 per capita per year for rural and urban areas respectively at 1975 prices. Its rural estimate is significantly lower than that of the Wage Commission. A study of minimum food costs plus other basic needs suggested a line of P. 360 per head at 1971 prices. Giving greater weight to actual expenditure compared to the least-cost method, the World Bank opted for P. 500 as the poverty line at 1971 prices. Separate regional poverty lines were not possible because available price indices for individual regions were based on different and separately specified baskets of goods which did not provide a reliable inter-regional comparison of price levels. The urban poverty line was set at one-third higher than the rural.

Use of poverty line: From the Consumer Price Index, the World Bank derived the poverty line over the period 1957-75. Poverty incidence between 1957 and 1975 was calculated on the basis of a household poverty line (assuming an average household size of six) and on a per capita poverty line between 1965 and 1975. Use of the household poverty line led to higher estimates e.g. in 1975 the figure was 53.2 per cent against 46.5 per cent for the per capita poverty line. This is probably because the former captures more non-poor households (i.e. small households with an above-average expenditure per person) than the poor households it leaves out (i.e. large households with below-average expenditure per person).

Taking the household poverty line series, estimates of poverty incidence were respectively 72.1, 57.9, 43.3, 44.9 and 53.2 per cent in 1957, 1961, 1965, 1971 and 1975. The indication is that the overall incidence of poverty declined dramatically between the 1950's and 1960's but increased to some extent in the early 1970's. The World Bank speculated that poverty incidence declined again in the late 1970's. However other researchers have suggested that the incidence has again increased, with figures of 62.6 per cent for 1979 and 67.6 per cent for 1980. In 1971, regions with high overall incidence of rural poverty (e.g. central and Eastern Visayas, Northern Minadanao, Bicol and Cagayan Valley), showed concurrent high incidence of poverty in the rice, corn, coconut, sugar, fishing, sectors. In regions with

low overall incidence (Central Luzon and Southern Tagalog) sectoral incidence was also low. This was also, in general, true for populations dependent on farm labour. Thus a very strong regional factor was apparent with only a few exceptions. The World Bank identified several factors possibly associated with poverty incidence in the regions: land and labour productivity, average farm size, percentage of farms less than 3 hectares, tenure, percentages of households with off-farm income, etc.

The World Bank has concluded that the most important determinants of poverty in the food crop sector appear to be the small farm size, limited access to land (tenancy or landlessness), low physical productivity, low value crop mix, lack of non-farm employment and remoteness or lack of infrastructure.

Malaysia

Definition of poverty line: Several poverty lines have been used in Malaysia, with substantial differences between them. The line of M\$ 258 set for rural areas by the Economic Planning Unit in 1978 appears to have been based on an average energy requirement of 2,180 K Calories per person. The EPU basket was made up of 22.2 per cent rice/cereals, 40.6 per cent other food and 37.2 per cent non food items. This poverty line is preferred by the World Bank. The other official line was M\$ 270, but its derivation is not clear. Another poverty line calculated by a researcher was equal to about half the national average income per head, or M\$ 25 per head per month in 1970 prices or M\$ 135 per month for a family of 5.4 persons. This is substantially below the official lines.

Use of poverty line: Government policy is to eradicate poverty throughout Malaysia and to correct economic imbalances between races. The Outline Perspective Plan aims to reduce poverty incidence to 16.7 per cent by 1990 in peninsular Malaysia. No specific targets are set for Sabah and Sarawak. According to the Fourth Plan the incidence of rural poverty in peninsular Malaysia fell from 58.7 per cent in 1970 to 54.1 per cent in 1975 and 37.7 per cent in 1980. Within the rural sector there were large differences. Poverty incidence was 88.1 per cent among paddy farmers in 1970, but only 30 per cent among oil palm smallholders. The estimate for paddy farmers fell to 55.1 per cent in 1980, representing an actual decrease in the number of poor households. Breakdowns for 1976 showed that the incidence of rural poverty was 51.1 per cent among Malays, 23.4 per cent among Chinese, 30.9 per cent among Indians and 50.3 per cent among the very small proportion of "other races", and very high in Sabah, Sarawak and in peninsular Malaysia, Kelantan and

Trengganu. In peninsular Malaysia, 36.1 percent of poor rural household heads had no formal education, in Sabah the figure was 68.8 and in Sarawak 70.8. No information is given in the report on a simultaneous breakdown by state, agricultural activity, race, education of household head, etc. A similar "poverty profile" for 1970, using a lower poverty line, indicates that the poor are mostly Malays, who live in rural areas of the four northern states. They are farmers and farm labourers, employees and own-account workers, and have large families and uneducated household heads.

A multiple classification analysis on 1973 data explained variances in per capita monthly expenditure. The factors, in descending order of importance are: education of the head of the household, ethnic group, child dependency ratio, household size, class of worker, occupation, sector and average hours worked. Low per capita expenditure was associated with low levels of education, Malay race, high child dependency ratios, large households, agriculture - particularly paddy farming, self employment low number of hours worked.

Government estimates of changes in numbers of households below the poverty line in the various categories over the decade 1970/80 consider the effects of various anti-poverty programmes as well as changes in factors such as prices of commodities and inputs. An estimated 9.6 percentage points of the decline in poverty incidence amongst paddy farmers (from 88 percent in 1970 to 55 percent in 1980) was due to the rise in the price of paddy in 1980. Other factors which increased farmers real incomes were irrigation to enable double cropping, extension and input subsidies. The World Bank indicates that factors mainly responsible for the continuing high incidence of poverty amongst paddy farmers are small size of holding and low productivity of paddy. In 1977, the EPU revised poverty line was about M\$250 per month or M\$3,000 per annum per household at current prices. To achieve this, a single-cropping paddy farmer with no outside income would need about 6-7 acres, but 90 percent of all single-cropping farmers have holdings less than 6.5 acres. With double cropping, about 3 acres would be necessary, but more than half of all double-cropped paddy holdings are smaller than 3 acres. This explains the government's emphasis on irrigation to allow more double cropping. The National Small Scale Irrigation Project, initiated during the Third Plan period, probably increased the incomes of about 60,000 smallholders. However, since the average size was only about 2 acres, most of the farmers would have remained below the poverty line.

Main Findings

Countries which have determined an official poverty line have done so on the basis of an absolute poverty criterion. This is normally a minimum food expenditure, with the addition of varying proportions for essential non-food expenditure. Sometimes, two lines are defined, one for food only and another for food plus essential non-food items. The minimum food expenditure is sometimes based on the costing of a diet, typical in the community which is adequate in terms of calories and protein. Sometimes it is based on information from household surveys of expenditure which is apparently providing adequate calories. The typical figure taken for daily calorie requirement has been 2,250 K Calories per person, but the range has been from about 2,000 to 2,400. Non-official definitions have also used minimum cost diets or a mixture of the two approaches. Non-food expenditure is normally estimated as a percentage addition to food expenditure, on the basis of observed expenditure in household surveys, either for the poorer groups or for the average. Only in Malaysia has a poverty line been estimated on a relative poverty basis i.e. using a 40 per cent cut-off point in the distribution of income. This was below the official poverty line of the period.

Where there are a number of differently defined poverty lines, questions of comparability naturally arise. This applies even more to estimates over time. There is also a problem inferring trends in poverty from estimates for two separate years, even when the same definition of a poverty line is used.

There has been general agreement that the poverty line should be defined in terms of individual requirements and income but that these should be aggregated according to the size and composition of the household to provide household poverty lines, considered the primary units for decision making. Often data has not been available to allow this, so that each household has been assumed to be of the same size and composition. This can lead to over-estimates of poverty incidence.

Price indices are required to adjust expenditure over time. As the basket of goods consumed by the poor is usually different from that consumed on average, separate price indices for different income classes are required. Where these are not available, biases may arise in estimating trends in poverty incidence, if official average consumer price indices are used. Similar problems arise in estimating poverty incidence in different regions of a country. Most countries defined poverty lines separately for rural and urban areas but only India defined them separately for each state.

The most serious problem arising from data inadequacies has been the inability to measure poverty incidence in a sufficiently disaggregated way. Though a breakdown by rural/urban sectors or areas was universally possible, only a few countries have been able to proceed towards the level of disaggregation called for in WCARRD recommendations, i.e. by geographic regions, age, sex and socio-economic groups. Data coverage has not always been uniform, with the rural or remoter areas usually under-represented. Errors in the data have been evident in many countries. The most common error has apparently been under-reporting of income in household surveys, demonstrated by the lack of conformity of such incomes when aggregated and those derived from the national accounts. Even when there is no systematic bias there is the problem of valuing consumption of non-marketed goods, such as subsistence production of farm households. Finally there is the problem of lack of standard definition and measurement of several variables between the countries. For example, anthropometric data were collected in some countries from children of age groups different from the 1-5 years called for by WCARRD. In other cases different cut-off points for these indicators were used e.g. 80 per cent rather than 90 per cent for height for age.

Technical Appendix II
Rural Development Strategies:
The Experience of China and India 1/

The rural development experience of China and India from 1950 to 1985 illustrates the extent to which -- and the mechanisms through which -- growth may influence the degree of rural poverty and inequality.

Similarities, 1950

The similarity between India and China in 1950 is obvious: both were large countries with acute land scarcity and extremely high levels of poverty, and both had undergone dramatic political changes. China was avowedly socialist; India labelled its development style "socialistic". Both were primarily agricultural, with China being marginally more industrial than India. In both cases, a minimum base existed for an inward-looking development strategy. Regarding specific industrial items, the position was not too dissimilar -- for example, India produced more electricity, but mined less coal per head than China. However in infrastructural development, India had a discernible advantage. Post, tele-communication and transport systems were superior, while infrastructural support systems (pig-iron and cement) were also relatively more developed.

Since the pressure on agricultural land resources was higher in China, the Chinese irrigated a marginally higher proportion of the cultivated area, practised more intensive cropping and produced higher yields per hectare. As a result, the processed grain net output per capita per year was somewhat higher in China than in India. China's higher output yields were consistent with higher indices for various inputs -- of human labour, animal and human excreta and chemical fertilizers. Thus rural China compensated for its relative land shortage by more intensive methods of resource use.

Regarding welfare indicators, the picture was better for India, although quite abysmal for both overall. A hospital was shared by 131,156 persons in India, by 208,335 in China; China's infant mortality rate was about 250 to 300 per thousand live births, twice that of India; foodgrain availability was slightly higher in India; 9.2 per cent of secondary school-age Indian children were enrolled, against 3 per cent in China.

1/ Based on a paper prepared for this publication by Professor A. Saith, of the Institute of Social Studies, The Netherlands. Views expressed are not necessarily those of FAO.

The agrarian structure in both countries was dominated by extreme disparity between rich landlords and owners, and impoverished tenants and marginal landowners. Landless labourers were not numerically significant. Most of the land was controlled by a small percentage of the propertied rural classes which extracted a substantial surplus. This reflected the acute inequality of income distribution rather than any real surplus over an acceptable minimum consumption norm. Acute exploitation of the poor meant no margin existed for them to survive fluctuations. Most families were in debt and famines were frequent.

Are there any special attributes of the traditional Chinese system which explain its subsequent success? It is argued that several principal features of Chinese society were a vital positive force once the real barriers to economic development were removed (that is, by the Revolution). While India shared these "virtues" -- complex farm technology, well-developed banking and commerce, meritocracy in government, a bureaucratic tradition -- it did not experience a revolution to unblock them. Of course all subsequent experience cannot be understood exclusively in terms of this variable, but it certainly is a major reason for differences between the two countries.

China

China, and especially its rural sector, has not followed a single unified development strategy. With the exception of a brief interlude (1962-65), the years after liberation until 1978 were the Maoist period; the years since then form the Dengist period. The former led to the communization of the peasantry; the latter to the peasantization of the communes. Both used different elements of Chinese tradition to impose their strategy on nearly one billion people. Exploiting the cultural, ethnic and linguistic unity of the people, Maoist strategy sought to eclipse family ideology by group ideology. Dengism uses the family as the basic unit, but is oriented towards the optimal exploitation of available resources. It relies not on socialist zeal and mass campaigns, but on a myriad of busy peasants all maximizing their profits.

The Maoist era, 1949-78 The process of land reform was completed throughout China by 1952. As a result, the power of the landlords was smashed and a new stratification emerged with the rich peasants in a very favourable position. Mao used the momentum of the revolution to push towards communization. In only 34 months, the peasantry passed through three stages of increasing cooperation to the full people's commune, with all means of production collectively owned and payments made

according to labour contributed. However, problems encountered, including three years of drought and management difficulties, soon led to restructuring of the communes into a three-tiered system. The lowest tier was the production team, which owned the land and formed the basic unit of production and political association; above it was the production brigade and finally the commune. This structure, which prevailed until 1978, provided the institutional framework for the implementation of the country's rural development strategy.

After breaking with the Soviet Union, China placed a great premium on rapidly generating industrial self-reliance. Such expansion would have to rely on the surplus product of agriculture to an extent, but agriculture was poor enough to justify its injection with a net flow of resources. The key constraint was insufficient capital: industry could not expand fast enough, nor employ enough rural people, to transform the economy structurally. Agriculture itself was short of capital, with high underemployment and large areas of low infrastructural development. To solve the problem without unduly squeezing the peasantry, Mao proposed growth of the rural product, with the condition that this growth should reflect itself first in improvements in the peasants' material well-being. The price mechanism, and quota and delivery systems, could then be used to transfer agricultural surpluses to industry. To generate growth in the poor rural areas, Mao introduced the idea of labour accumulation and proposed that the rural commune be industrialized so that a transfer of resources from agriculture to industry would not automatically be away from the peasants. Labour accumulation and commune-based industry thus formed the axis of the new development plan. All labour-poor and disadvantaged households were guaranteed a minimum amount of grain, provided by the team. The strategy was for the rural sector to pull itself up by its own bootstraps, allowing state investment in other sectors.

The people's commune was ideally suited as an instrument for the Maoist mass mobilization campaign. It was used first to create rural infrastructure (mainly water conservation facilities, but also irrigation schemes, wells, roads and bridges). Such work was generally undertaken in the slack season and roped in much of the 20 per cent rural underemployed. Collectivization and communization facilitated such labour use. Labour accumulation also formed the original stimulus which set the commune and brigade industrial sector (CBI) on its way. Demand for CBI local products rose; the CBI stimulated demand for raw materials, repairs and transport. The agriculture-industry link generated a self-reliant growth of the entire commune system. This was achieved through the communal work-point system,

with the effective wage rate of CBI workers pegged to the average consumption level of the peasants. Thus, the sector produced high profits, which were channelled into productive investments in industry, social consumption or infrastructure. The payment system also prevented the peasants and CBI workers forming into distinct classes.

Growth within the communes also had egalitarian aspects. First, the provision of health, education, hygiene and sanitation were on a "per head" rather than income basis, and favoured poorer households and units proportionally. These facilities, plus the minimum grain ration, provided a floor to household consumption. Second, labour-poor households were frequently assisted with cash loans, paid back as the household's per capita income rose. Third, the private household sector was strictly circumscribed and expected only to supplement the collective income. Fourth, there was a tendency to narrow differentials within the collective sector. Fifth, the commune (or brigade) could adopt active redistribution policies in relation to the poorer brigades (or teams) under it, e.g. preferential access to machinery, assistance in setting up non-farm activities, preferential employment in the CBI sector. Sixth, in the more advanced communes, the ultimate instrument for levelling inter-unit inequalities was the merger of production teams into a single brigade, or the brigades into a commune. Last, the growth process within the communes made them inherently egalitarian. Partly because of the greater labour intensity and lower resource intensity of their output, the poorer teams achieved higher marginal returns on investment than the richer teams, resulting in a narrowing of income gaps.

We have looked so far at the internal growth process within communes. However, the actual outcome of this process, in terms of absolute and relative levels of development and income, depended crucially on two dimensions. The first, the inter-sectoral dimension, encompasses inter-sectoral terms of trade, peasant-worker inequalities in consumption, and agriculture's share of public investment. First, it seems clear that terms of trade moved in favour of agriculture steadily over the entire Maoist period. However, there is some evidence that price levels in agriculture were low to begin with, which would allow for higher industrial consumption and/or accumulation at the expense of the peasant sector. Second, it appears that workers enjoyed higher levels than the peasants of consumption of most items except grain. This was possible partly because restrictions on rural-urban mobility protected urban jobs and partly because of the expansion in the number of workers per household in the cities. (It should be noted, however, that workers' absolute levels of consumption were far from luxurious).

Third, since growth of output far exceeded consumption, the accumulation rate rose in China from 21.4 per cent in 1952 to an incredible 36.5 per cent in 1978. Did the rural sector receive a fair share of this? World Bank estimates for the periods 1965 and 1977-79 show that agriculture received no more than a fifth of total fixed investment in both periods and was a minor recipient of the state's capital construction allocation. In addition, as much as 60 per cent of agricultural investment came from commune funds.

The second dimension influencing the performance and possibilities of the communes was the inter-regional one. Arguably, the most intractable form of inequality marking China is regional. Strictly speaking, this inequality violates socialist principles and should be corrected; but being very costly in economic terms, correction has been attempted only through influencing of the regional growth process. The main instruments for this were fiscal redistribution from the richer provinces, national pricing policies for crop procurement, state investment and direct relief. Against these measures there were "natural" tendencies within the system for regional differentials to widen. Communes near major urban centres, or in agriculturally propserous regions, would develop their industrial sector more. However, some evidence indicates a significant decline in the indices of regional inequality, probably due to the impact of state policies. There was also a sharp decline in the indices of regional inequality of per capita grain output at the provincial level, reflecting similar drops in the indices for irrigation. The vast majority of China's poor are therefore concentrated in areas where neither institutional egalitarianism, nor self-help on a petty scale, nor state investment, can produce results in a short period. (In fact, two-thirds of the rural poor are concentrated in just five provinces.)

Analysing the dynamics of regional change, it appears that the agricultural positions of the industrially better-off provinces have improved mainly due to improvements in the position of the rural industrial sector, which in turn was strongly associated with the initial level of industrial development per capita. Policies of industrial location and industrial decentralization seem to have been very important in influencing the extent and pattern of rural inequalities. However, within this pattern the absolute levels of development have risen even in the low-ranking provinces, and probably more than proportionally.

The achievements of the Maoist period in terms of fundamental development objectives are therefore very considerable. The growth record is extremely creditable compared

to that of other developing countries. In distributional terms, inter-regional inequalities declined as did inequalities within units (although those between units were more intractable). Absolute ratios of inequalities at various levels suggest moderate differences, though these narrowed considerably when grain consumption was taken into account, thanks to the food distribution system. Abject poverty was reduced drastically, through the creation of an effective welfare net. With regard to the third major objective, self-reliance, the Maoist period could again claim victory. At the macroeconomic level, China was successful in generating inward-looking growth based on the home market. Its policy of rural industrialization was formulated to make regions self-sufficient as far as possible, especially in foodgrains, identified as the "key link" in the growth process. This objective was achieved in almost all regions.

While the Maoist strategy was essentially successful, inherent in this strategy were unavoidable trade-offs with other possibilities. The problems of the period, so strongly criticized now, are really problems of success in breaking through the first front of poverty and underdevelopment.

The Dengist Era It is too early now to provide a considered assessment of China's new rural development strategy. However, some features are clear. Production relations are not viewed as ends in themselves at this stage of development, but as instruments for the achievement of quick material prosperity. The national readjustments involve a lowering of the overall rate of accumulation. Within agriculture there is a shift from local level grain self-sufficiency to more specialized cropping patterns, from crop production to household sidelines. To facilitate this, virtually all curbs on household private sector activities have been lifted, including those restricting private capital accumulation, labour-hiring and land-leasing. The household has been made the basic unit of production. Prices for agricultural products and the supply of consumer goods to the rural sector have been greatly increased. It is visualized that, ideally, just one third of rural households will engage in crop-production; the rest will specialize in non-farm activities. It is openly recognized that inequalities between units and regions will increase; indeed this is regarded as having an incentive effect on production.

Since the reforms, economic growth in the rural sector has been very rapid: during 1978-81 output of crops rose by 3.7 per cent, output of "animal husbandry, forestry and fishery products" by 7.8 per cent, and "sideline and industrial products" by a staggering 11.8 per cent a year. There has been an even more rapid growth in incomes, due to price hikes for procurements.

However this growth seems unlikely to last. First, there has been no significant increase in crop production, especially grains. Price increases for these products have to be viewed as income transfers for the sector as a whole. Second, the high responses of the other two sub-sectors have to be seen in the context of extremely favourable demand conditions combined with a lifting of supply-side restrictions. As normal proportions of production and consumption are restored, this excess-demand may taper off.

In a few years, overall supply response should return to normal, as should growth in real incomes. But while this newfound prosperity may not last too long, it has performed the structurally invaluable function of lubricating the political system in a difficult period of transition away from socialist production relations in agriculture. In the longer term, the growth rate will depend upon the rate of accumulation and its effectiveness. It should be noticed that the new policies explicitly set out to reduce the rate of accumulation. Further, problems are emerging in the management of formerly collective assets (e.g. irrigation, drainage systems), leading to reduced efficiency. On balance, a sober prospective is called for in weighing the possibilities of extending the present gains into the future on the basis of present policies.

On rural poverty, the Dengist strategy waived taxes on all poor production teams, providing a marginal increase in the incomes of the poor. It is argued that the new policies will help the poor specifically to raise incomes. This is rather speculative, because rural poverty exists mainly in backward regions, growth possibilities exist mainly in the agriculturally advanced areas or in pre-urban regions, and crop price increases help the surplus-producing regions. Along with privatization of the rural economy, the availability of social services is also likely to diminish. Such evidence as exists suggests that estimates putting China's rural poverty at 3 per cent in 1977-79 and 1 per cent in 1983 seem grossly underestimated. First, it is based frequently on the rise of private incomes of poor households, when in fact private work has come to replace, not supplement, collective work. Second, while the number of households with per capita income below a fixed money level has diminished, it might just mean there has been inflation. Finally, there is no reason to believe that the outcome for the poor would be remarkably different in rural China from that in some other profit-motivated peasant system. In the new framework, there is no welfare net for "failures".

There is evidence that the new system does exacerbate inequalities at all levels. While worker-peasant inequalities are likely to have diminished significantly for advantageously placed

peasants, they are likely to have widened further between poor regions and the rest of the country. Within the locality, inequalities appear to be widening between the upper and lower classes. The rules of the game have altered strongly in favour of the richer households which can now convert money into capital and employ the poor as labourers. In other words, there is clear evidence of rural class formation in China. Finally, as regards self-reliance, it could be argued that Mao's import substitution strategy was too inward-looking, with consequent lack of modernity in technology and competitiveness in foreign markets. Also, it might be argued that grain self-sufficiency at local and provincial level is no longer necessary. It should be noted that China has been importing increasing quantities and an increasing proportion of its total grain since the reforms, suggesting that China is not self-sufficient in grain.

Dengism now claims to be the real ally of the rural poor. In the past few years it has "delivered the goods", at least to a section of the peasantry. It may have also undone the long-term gains of the Maoist period in return for immediate gains. In any case, its present trajectory will take rural China in a direction difficult to reconcile with all but the widest definitions of socialism.

India

India's experience of rural development needs to be set in the context of the macro-economic development strategy at national level. The central plank of this strategy was a process of planned industrialization in which the public sector would play a leading role. The secondary role of agriculture was the product of at least two influences. At the political level, the middle and rich ex-tenants' historical aspirations for land proprietorship rights had been fulfilled. Second, Indian planners at the time of the launching of the heavy industry-oriented Second Five Year Plan in 1956, assumed that the crucial constraint blocking development was the capital goods constraint -- the supply of wage goods, mostly foodgrains, was assumed to be sufficiently elastic.

This type of industrial strategy has proven quite incapable of absorbing the net additional labour force of the country, let alone reduce the backlog of un- and underemployed. The task of the rural sector was thus to absorb increases in the labour force, provide food and industrial crops, and reduce rural poverty. Two main issues arise: has the growth performance of Indian agriculture been inhibited by the inequitable rural framework? And has agricultural growth within the prevailing system of property relations led to the alleviation of rural

poverty? In exploring the Indian case, it is convenient to divide the period since independence into two, with the onset of the so-called Green Revolution, around 1967/68 setting the divide.

In the first period, access to land was extremely unequally distributed. At the all-India level in 1961-62, 55 per cent of ownership holdings were under one hectare and covered only 7.6 percent of the total land owned; the same percentage of holdings covered about 45 per cent of the land. Ownership and the operational distributions resemble each other closely. Cultivation practices and cropping patterns tend to be rather similar across the different size classes in any agro-climatic zone. Within this highly fragmented but unequal structure, smaller farmers squeezed more out of their land per acre in terms of value of total output, thanks to the lower implicit wage at which they worked on their own holdings. Basic propertied interests formed the obstacle to land reform in India. Institutional changes were restricted to tenancy and land ceiling laws, both of which were easily by-passed by the land-owning classes. The major institutional element of the rural development strategy was the Community Development Programme (CDP), under which 100 villages with 60-70,000 people were to constitute a community development block, administered by a block officer and a specialized staff. The CDP took the village as a whole as its target and covered the entire country. Although the system was supposed to be supplemented by cooperatives, only service cooperatives were promoted. These too became vehicles for the routing of state resources by the richer farmers. In all, the rural development strategy was passive, with neither a sharp growth impulse nor any institutional thrust towards greater equity. The availability of cheap imported foodgrains also took the edge off any urgency.

The dramatic transformation of this situation can be attributed to a number of factors. With sluggish agricultural growth and rapid industrial expansion, food prices began to rise towards the end of the SFYP; the two-year famine in the mid-60s accelerated inflation and indicated the vulnerability of the economy to agricultural fluctuations; the period coincided with the arrival of the hybrid seed/chemical fertilizer technological package for wheat. The Third Five Year Plan incorporated an agricultural strategy with a technological thrust. It was also selective, with inputs to be provided to the most advanced districts or areas of assured irrigation; on the ground, this policy was restricted mostly to irrigated wheat areas with the focus on larger farmers. The CDP approach was effectively defunct and recast within the Intensive Area Development Programme (IADP), concentrating on advanced areas alone.

This strategy incorporated structural elements which altered the initial inverse relationship between farm-size and land productivity. The new technology was crucially dependent upon the availability of adequate and controlled water supplies. This placed the package beyond the reach of farmers with no access to canal irrigation or whose holdings were under the threshold size of a tube-well at prevailing prices of inputs and outputs. Another change arose from possibilities of using tractors so as to increase double-cropped areas. This became possible because of the reduced land preparation time subsequent to mechanization. An intended side effect of the new technology-oriented policy was the regional concentration of the marketable surplus. The wheatgrowing areas of North India, the Punjab, Haryana and West Uttar Pradesh recorded spectacular production increases. The Central Government undertook to purchase unlimited amounts of this grain at a premium procurement price; "incentive" pricing became essentially a euphemism for super-profits. Thus, the budget had to carry large subsidies to keep the issue prices low, and in certain years this involved importing cheap wheat to mix with the locally procured one.

Did the new growth strategy succeed in its objective of a sharp increase in agricultural growth rates? Data show that between 1951 and 1984, per capita net availability of foodgrains increased by only 10.9 per cent and has not kept up to its 1968 level. Thus there was a failure of the growth strategy at an aggregate level. A second question is whether the new intensification strategy led to any acceleration in the growth rate of output. There appears to be no evidence of acceleration in the growth rate in total cereals and total foodgrains as between the pre- and post-Green Revolution periods. On the whole, year-to-year fluctuations in all cereals and all foodgrains output, barring the (possible) exception of wheat, also tended to widen.

What have been the distributional implications of this scale and pattern of agricultural growth? Per capita availability of foodgrains barely kept up with the rate of growth of population, indicating that the poor did not have enough to eat even if their real incomes were greater than before. It is generally accepted that the growth rates of income of the smaller farmers have been lower than those of the larger ones. While the value of per capita agricultural output remained stagnant over the 1960s, the proportion of landless labourers in the total agricultural workforce rose from 23.8% to 37.1% - an increase which reflects changes in agrarian relations, (eg., declining tenancy), consequent to the Green Revolution. There is direct evidence that in general, real agricultural wage rates declined everywhere except in Northern India, and that the number of days of employment per labourer also fell.

The labour absorptive capacity of Indian agricultural growth has been reduced by a variety of factors. First, there has been an increase in the concentration of operational holdings, possibly on account of the eviction of erstwhile tenants and because larger holdings are cultivated with lower labour intensities. Second, the degree of mechanization has risen. It is now common for small farmers in the Punjab to have fields harvested by a combine harvester hired on a collective basis from a large farmer, or from a service company. Thus, it would not be surprising if the demand for labour per hectare declines in the immediate future. Third, endogenous structural tendencies erode the demand for labour. Given the inability of the urban sector to provide jobs and the general absence of a dynamic programme of rural industrialization, there is an inexorable trend towards sub-division and fragmentation of farm holdings.

The fundamental limitations of this limited growth strategy have been implicitly acknowledged by the government. This has led it to intervene in the growth process, not by structural interventions in the sphere of property rights, but through promulgating "a sub-strategy of welfare". Let us first consider the programmes of the Central Government. One way in which "trickle-down" was expected to reach the poor was through the public distribution system (PDS) of rationed food-grains. It is quite apparent that this did not work from the point of view of the poor. The PDS is restricted to major towns and cities, and to concentrations of industrial workers.

The Small Farmers Development Programme and the Marginal Farmers and Agricultural Labourers programmes, were initiated essentially as credit programmes specially oriented towards the lower strata of the peasantry. But these programmes were handicapped by heavy bureaucratic procedures, delays in getting loans, poor definitions of target groups no recognition of constraints to the demand for credit because of the structural and production conditions of the target groups. The range of the rural development programmes of this special target-group type has been extended with the Integrated Rural Development Programme (IRDP) and a National Rural Employment Programme (NREP), specifically targeted to the poor. But how far have they got?

In 1981/82 the NREP generated (assuming full employment for those employed by the programme) full-time wage work for about 1.2 million workers or 1% of the poor. Benefits to the poor from the NREP come through the wage component, but there are strong reasons for believing that there are leakages of funds. Third, the programme does not promote any permanent capacity for generating higher incomes in future years. Ironically, the rural

infrastructural investments of the NREP provide sources of growth for the local landowners on a permanent basis and, as such, could be seen as a subsidy for the landowning classes.

The IRDP covers a wide range of activities (minor irrigation, dairy development, animal husbandry, animal-powered transport) and is based on the creation of assets and skills which, along with credit provided, are expected to generate a permanent flow of income for the beneficiaries. However, studies reveal that in Assam 42 percent of the target group was wrongly classified. On top of this, there was the usual problem of fund leakages. A detailed independent study of the impact of IDP on rural poverty concludes that under 10 percent of the beneficiaries would have been lifted over the poverty line.

The main conclusion is that within the inegalitarian institutional framework, benefits of agricultural growth do not trickle down to the rural poor; and that bureaucratic interventions are unsuccessful since they have to contend with the opposition and subversion of the propertied classes at the village level. It is in the context of these fundamental failures in the so-called sub-strategy of welfare that the population control policy of the state has to be viewed. It has been directed against the poor more than any other group and as such it can be viewed as a policy of class suppression which also rides rough-shod over the survival strategies - based on large family size - of the poor.

Other anti-poverty interventions have had mixed success. The most interesting developments are provided by the Marxist party-led state governments in Kerala and West Bengal. In the former case, the unionization of agricultural labour, under the umbrella protection and encouragement of a sympathetic political set-up, was very successful. In West Bengal, the status and rights of share-croppers have been formally recorded. Agricultural labour has also been organized, and programmes of land redistribution have been taken up with vigour. However, there are constraints from the dependence of the Marxist party on the large numbers of middle peasants, (e.g. land ceilings have been rather liberally set). The overall conclusion must remain that these interventions cannot substitute for a deep structural reorganization of land rights, nor for a reoriented growth process within the rural economy.

Finally, with regard to rural self-reliance, there are some positive aspects. The percentage of imports in the net available foodgrains has declined to the 2-to-3.5 per cent level. An initial dependence on imports for chemical fertilizers has been reduced to quite low levels. On the other hand, at the

intra-national level, the story is rather different. First, self-sufficiency still remains a distant goal for most states, with the overwhelming by largest proportion of the surplus bottled up in the Punjab and Haryana. Second, farmers were generally more dependent on outside sources of inputs supply, and this added to the precariousness and vulnerability of Indian agriculture. For example, land productivity has suffered in many areas, due to the untimely and unpredictable shortages of electricity.

Since 1970/71, India's per capita GDP has grown by about 1.4% annually. The real GDP generated in the agricultural sector grew at just 2%, or under the rate of growth of the population. Not only could agriculture not grow at a balanced rate with the rest of the economy, even when the rest of the economy was itself growing so sluggishly, but it was not even able to keep up with the increase in numbers. Far from experiencing rapid rural development, rural India suffered slow growth.

Contrasts, 1980

There can be little doubt that with regard to the three criteria of growth, improvements in distribution of wealth, and self-reliance, China has outperformed India in most respects. Between 1952 and 1981, population increased by 73.3% in China and by 86% in India; China's index for real growth in per capita incomes stood at 303.2 at the end - a level more than twice that attained by India. The difference in performance is due mostly to dramatically different growth rates in the industrial sector. The mainspring of Chinese industrialization was the extremely high rate of accumulation: starting from an initial level of 21.4% which was itself quite high, it pushed up steadily and peaked at an incredible 36.5% before being reduced under the current reforms to 28.3% in 1981. The Indian rates also show a steady upward trend, but remain altogether at a lower level.

The different performances are also manifest in poverty and related aspects. It is generally agreed that the incidence of poverty has declined in China since the revolution, and further over the current period. An arbitrary figure of 10% has frequently been used. Two special features have to be noted: consumption of non-food components of the subsistence basket (education, health, housing, etc.) rose more sharply than foodgrain consumption; second, because of the minimum guaranteed level of food consumption, the level of abject poverty was probably virtually nil. These two features act as extremely important qualifiers to the head-count guesstimates of the level of rural poverty in China today. In contrast, the percentage of poor within India's rural sector fluctuated around the 50% mark

throughout this period and might well have intensified for the lowest 15-20%. In India, there are improvements in social indicators, but they are not nearly as impressive as in China. Regarding distributional inequality, the change in the rural institutional framework in China effectively removed the extreme ends of the distributions, and collectivization narrowed the local differences even more. This is remarkably different, of course, from the extreme levels of inequality invariably found within Indian villages. Inter-unit inequalities at the local levels are also likely to be lower in China. At the regional level, we find wide differentials in the average levels of regional development and incomes, the orders of magnitude being not too different.

On the question of self-reliance, both countries had strong and relatively successful import substitution drives in the early phase. While China turned genuinely self-financing after the Soviet departure, India has retained a certain, though unproblematic, degree of dependence upon external financing. Both have come near to, or actually achieved, grain self-sufficiency. Both feel the need to modernize their industrial technology through an injection of advanced foreign know-how. While most provinces of China have been self-sufficient in terms of grain requirements, this is very far from being the case in India.

What was the role of development policies adopted to overcome a range of similar obstacles within the divergent institutional and political systems? Considering agricultural growth, China's problem was greater than India's. Since its initial yield levels were quite high, marginal returns to further intensification could be expected to be lower in China than in India where the degree of intensification was also much lower. The response was a tremendous increase in inputs per unit of land, resulting in an increase in the yield of foodgrains of 115% - just ahead of the growth in population. The story for India is similar. How did this slow agricultural growth affect distributional dimensions and how did it affect the national growth process?

China used institutional interventions as a distributional policy instrument, ensuring that even where the average level of grain consumption was near the poverty level, not many households were below it. The deficit households and areas were then covered partially through a rationing system (through inter-regional transfers via the state trading mechanism). Allocations to agriculture from the state capital accumulation budget were well under 20% and reflected the first claim enjoyed by industrial development. This very priority system, which also accounted for the low level of grain prices paid for the

surpluses transferred. Low grain prices effectively fueled industrial accumulation and as a side-effect, kept inter-regional differences between surplus and deficit grain areas down. China introduced the specific self-reliant and cumulative growth circuits of rural industry and labour accumulation into the rural sector. Labour accumulation provided a vital initial impetus to the rural industrial sector which, in turn, significantly lifted total rural incomes. This led to the fulfilment of a variety of non-food basic needs which would otherwise not have been met.

In India, such institutional interventions were ruled out by the nature of Indian policy. A few additional observations: the allocations to the agricultural sector have not been very high due to the higher priority allocated to the industrial sector. But no alternative internal mechanism for capital accumulation and growth of the Chinese type have been possible in the rural sector. Rural industry is a follower of agricultural prosperity; such rural industry as does exist does not feed back into incomes of the poorer groups; public works programmes try to make infrastructural investments, but their impact is insignificant.

The lack of interventions in land rights has made the government seek policy substitutes in the sub-strategy of distribution. The public distribution system has meant that agricultural surpluses bottled up in some regions cannot be extracted at low prices. The drift in prices in favour of surplus regions, and the inability of the government to directly provide for the food needs of the poor, means that the poor are confronted by higher prices.

The fragmented agrarian structure and the indivisibility of the technology package has meant that the absorption of rural technology is restricted on the one hand, and excessively labour displacing, on the other. Alternative policies, such as small farmer credit programmes, and the provision of state-owned machines, have not really broken this agrarian structural barrier. No effective substitute for the commune framework, where such obstacles were removed, and where the distributional conflicts of capital intensive technology were preempted by the system of collective ownership and employment sharing, have been possible in India.

Finally, common problems still face the two economies, especially in the rural sector. Specifically, the problem is one of getting agriculture moving, and of raising the labour absorbing capacity of the growth process. Within agriculture there are returns on investment in already advanced areas are diminishing while opening up new areas is very expensive. In

response, China has adopted a strategy of extending the area of cultivation which has stable yields, and is not vulnerable to the vagaries of the climate. This has stabilized the growth trends of output, whereas in the Indian case, in the absence of any such explicit policy, fluctuations are found to have increased with intensification. There are similar tendencies at the national level in both economies, with the incremental capital-output ratios showing rising trends and high levels. Thus, some major restructuring of the strategy is called for. China has already made its move: previous rural sector policies are being stood on their head, and new and cheap sources of growth are being sought through extension of the scope of the household economy. Unfortunately, in India, there is no such slack to take up. On the vexed question of population, the rate of natural increase in China is 11.7/1000 and in India 20.4 per thousand. China is on the other side of a ridge that India has still to cross.

Technical Appendix III

Who is the Small Farmer?

A small farmer oriented development strategy requires a clear identification of the groups needing special help and attention. Although there are different definitions, based on different criteria, the small farmer could be defined as a "low income, disadvantaged rural farmer" with certain general characteristics. These are:

- the size of the land he or she cultivates is small compared to the average acceptable for the agro-ecological zone;
- the produce he or she obtains is mainly for self-consumption and does not for commerce;
- the level of income he or she obtains is barely above, or coincides with the rural poverty line;
- he or she has limited access to resources such as credit and inputs;
- he or she has little or no influence in decision-making related to factors which determine his/her socio-economic condition and farming operations.

Between countries, definitions differ. In Nigeria the small farmer has been described as a "complex organization" rather than a simple individual. The small farmer is really a family, consisting of the father with one or more wives and often a multitude of children. Because individual household members have their own attitudes, prejudices and perceptions, the collective response of the farm family to external agents will be influenced by their individual attributes. The small farmer's land measures from one to four acres only and may be scattered discontinuously over a wide territory, so that the family may have to schedule working visits to them. It is usually difficult to expand the farm size through the acquisition of land because neighbouring farmers are very reluctant to part with their land and, even when it is available, the price may be beyond reach. When the head of the family dies or his sons are old enough, the family's holding is fragmented, with surviving members of the family obliged to assist on the resulting smaller farms. Typically, small farmers' lands are inaccessible to motor vehicles. Thus, it is difficult for tractors to reach them for farm operations, and for lorries to deliver farm inputs or bring out produce.

The small farmer generally works the farm with the family's labour at little or no monetary exchange. However, the size of the available family labour has fallen drastically over the past decade or so. The introduction of universal primary education has drawn children away from fulltime farmwork. As the average age of the adult household members increases, they are able to do less. These adults are usually illiterate and have technical skills. Thus the majority use axes, cutlasses, hoes and knives for all their farm operations, which they have learnt through practice and from well-tried traditions. In addition, since they produce their own seeds from unimproved stock, yields are low; their farming system involves mixed cropping; most do not use modern farm inputs and have no special soil conservation or soil fertilizing methods and the few who use inputs have problems of access to them. The small farmer is further characterized by his/her restricted access to cash. His/her cash earnings are low and he/she has little access to government institutionalized credit, extension, market information or social amenities.

Finally, the small farmer is a very shrewed economist, quick to adopt something new if its economic advantages are clearly demonstrated. He/she will also jettison an ongoing enterprise -- including the use of "improved" technologies -- as soon as he/she determines it to be failing.

In Kenya, the small farmer is not easy to define because of wide climatic and agro-ecological variations and different cultural practices. The Central, Western and South-western Provinces have most of the high-potential lands and the greatest population density. On the other hand, there are farmers in arid and semi-arid zones owning 50 to 100 acres of land but whose incomes may be much less than that of these "smallholders". Different agencies have defined the small farmer according to their own objectives: for example, as one who borrows not more than K.Sh 20,000 at a given time (Agricultural Finance Corporation), or who owns up to five acres of land (Ministry of Economic Planning). A broader definition of the small farmer is one whose landholding does not exceed 15 acres. However, this definition, for the purpose of input supply and services, leaves out a proportion of the agricultural population, the landless and so-called "squatters". While the landless are being taken care of by new settlements, the "squatters" occupy and cultivate land to which they have neither rights nor title.

Other African countries follow definitions based on area of cultivated land, despite agro-ecological differences within the country. Using five acres as the maximum size of a "smallholding", small farmers would occupy 82 per cent of cultivated land in Ethiopia, 84 per cent in Lesotho, 79 per cent

in Tanzania and 47 per cent in Ghana. In such countries, it may be necessary to follow an even smaller holding size if attention is focused on those farmers most in need of assistance. By whatever method African small farmers are defined, there are certain characteristics common to all. They make intensive use of family labour; their lack of assets limits their ability to borrow; they face great risks and are therefore extremely security conscious; they are extremely responsive to profitability and likely to be attracted to innovations that increase their net family incomes. Most, especially the poorest, have considerable difficulty in securing access to government services. In many regions, they live and farm in inaccessible locations.

In Bangladesh, the definition of "small farm" is based on physical land holding per farm in relation to family size, minimum level of subsistence, productivity and income. Since the average farm cereal-equivalent requirement is 1.2 tons per year and the rate of productivity per acre has been estimated at 0.75 tons a year, the minimum requirement of cultivated land to meet annual subsistence needs is 1.60 acres. However, the concept of farm size must also recognize the existence of homestead, ponds and a certain area of land not cultivated. Therefore, the "small farm" category may fall within the range 2 to 3 acres.

According to the Land Occupancy Survey 1979-80, farms of up to 3 acres constitute 38 per cent of total area. Those with up to 3 acres of land constitute about 53 per cent of total rural households, excluding the landless. However, rigid definitions are questionable, given variations in Bangladesh's regional characteristics.

In India, the definition of small farmers, marginal farmers and landless labour was laid down in 1974. Cultivators with land holdings below five acres of dry land or 2.5 acres of class I irrigated land were grouped as small farmers, while those having holdings of up to 2.5 acres of dry land or 1.25 acres of class I irrigated land were classified as marginal farmers. As for tenants and sharecroppers, those with recorded rights were to be treated as small or marginal farmers, according to their holding.

Other Asian countries have various yardsticks. Studies in Indonesia suggest that holdings below 0.35 hectares should be considered small, although an ILO study suggested a ceiling of 0.75 hectares. The use of the former criteria would cover about 45 per cent of the rural workforce spread over a very large number of tiny holdings. In Pakistan, a general definition of holdings up to 12.5 acres has been used by the Government to group the small farmers. In 1972, out of 3.76 million holdings,

68 per cent were in that category, and accounted for 13.9 per cent of total cultivated area. In the Philippines, where the small farmer is described as one with a holding of 7.4 acres of irrigated land or 12.5 acres of rain-fed land, nearly a million rice farmers cultivate an average of 2.1 acres each. In Sri Lanka, holdings below five acres constitute almost 90 per cent of total holdings, with 1.6 million smallholdings (average size 2.36 acres) covering 3.9 million acres.

Bibliography

ABOYADE, O. Incomes profile. Ibadan, University of Ibadan.
1973

ALAMGIR, M. Famine in South Asia: political economy of mass starvation. Cambridge, Mass. Oelgeschlagen, Gunn & Hain
1980

ALTIMIR, O. Measuring level of living in Latin America - an overview. Washington D.C., World Bank. LSMS No. 3
1980

BALCET, C. Adoption of farm technology on the Northern Nigeria Agricultural Development Project. Paper presented at the First National Seminar on Agricultural Development Project. Ibadan, Federal Directorate of Rural Development.
1982

BARDHAN, P.K. On the minimum level and the rural poor. Indian Economic Review 6, April.
1971

BERGSMAN, J. Income distribution and poverty in Mexico. Washington, D.C., World Bank. Staff working paper No. 395
1980

CABALLERO, J.M. Sobre el caracter de la reforma agraria peruana Latin American Perspectives, Vol. 4, No. 3.
1977

CHEN, L.C., HUQ, B., & D'SOUZA, S. Sex bias in the family allocation of food and health care in rural Bangladesh. Population Development Review, Vol. 7, No. 1.
1981

CLEAVER, K.M. Agricultural development experience of Algeria, Morocco and Tunisia. Washington, D.C., World Bank. Staff working paper No. 552
1982

COLLIER, P. Oil and inequality in rural Nigeria. In Agrarian policies and rural poverty in Africa, D. Ghai and S. Radwan (eds.). Geneva, ILO.
1983

CORNIA, G.A. Farm size, land yields and the agricultural production function. World Development, Vol. 13, No. 4, p. 513.
1985

De JANVRY, A. The agrarian question and reformism in Latin America. Baltimore, John Hopkins University Press
1981

DENSLOW, D. & TYLER, W.G. Perspectives of poverty and income inequality in Brazil; an analysis of the changes during the 1970s. Washington, D.C., World Bank. Staff working paper No. 601.
1983

DEY, J., EL-BAGIR, I. & WAGNER, A. Labour markets in Sudan,
1984 Geneva, ILO.

DONALD, G. Credit for small farmers in developing countries.
1976 Boulder, Colorado, Westview Press.

D'SOUZA, S. Small-area intensive studies for understanding
1984 mortality and morbidity processes; two models from
Bangladesh. In Data bases for mortality measurement,
New York, UN. Population series No. 84

DU RUNSHUNG Good beginning for reform of rural economic systems.
1981 Beijing Review, Nov. 30, pp. 16-17

ECLA Les empresas transnacionales en la agro-industria Mexicana.
1981 Mexico City.

EL GHONEMY, M.R. Resource use and income in Egyptian agriculture
1954 before 1954 and after land reform with particular
reference to economic development. Raleigh, State
University of North Carolina.

ESMAN, M. & UPHOFF, N. Local organizations - intermediaries in
1984 rural development. New York, Cornell University Press.

ESTEVA G. The struggle for rural Mexico. South
1983 Hadley, Mass. Bergin & Garvey.

FAO Production yearbook 1972. Rome.
1974

FAO State of food and agriculture 1976. Rome.
1977

FAO Agriculture: toward 2000. Rome
1979

FAO Analysis of 1970 World Census on Agriculture. Rome
1981a

FAO The peasant's charter; declaration of principles and
1981b programme of action of the World Conference on Agrarian
Reform and Rural Development. Rome.

FAO Evaluation of rural development in Yemen Arab Republic,
1981c by M.A. Zaman. Rome.

FAO State of food and agriculture 1981. Rome.
1982a

FAO Socio-economic indicators study, Tunisia. Rome.
1982b

FAO State of food and agriculture 1982. Rome
1983a

FAO Somalia - case study on rural poverty, by G.J. Tyler. Rome.
1983b In-depth Studies on Rural Poverty Alleviation, No. 7

FAO Toward the alleviation of rural poverty in the Sudan, by
1983c A.A. Sheikha. Rome.

FAO International comparison of household income distribution.
1983d Rome.

FAO Women in food production. Rome.
1983e

FAO Nigeria case study, by O.O. Ojechomon. In Delivery
1983f systems of agricultural services to small farmers
in Africa. Rome

FAO Commodity Review and Outlook, 1981-1982
1983g

FAO Rural poverty and agrarian reform in the Philippines, by
1983h R. Sobhan. Rome.

FAO Women in agricultural cooperatives: constraints and
1983i limitations to full participation, by G.N. Lamming.
Rome.

FAO Economic growth, income distribution and rural poverty, by
1984a M.R. El Ghonemy. Rome

FAO Landlessness in India, by B. Dasgupta. Rome.
1984b

FAO 1984c Landlessness: a growing problem, by R. Sinha. Rome. Economic and Social Development series No. 28.

FAO 1984d Development strategies for the rural poor, M.R. El Ghonemy (ed.). Rome. Economic and Social Paper No. 44

FAO 1984e Production yearbook 1983. Rome.

FAO 1984f External assistance to agriculture. Rome. ESP.

FAO 1984g Motivation of public officials serving small farmers: the Asian context. Rome. ESHI.

FAO 1984h Technical advisory support for the Corum-Cankiri rural development project. Rome.

FAO 1985a Fifth world food survey. Rome.

FAO 1985b Country tables 1985; basic data on the agricultural sector. Rome.

FAO 1985c Food aid in figures 1984. Rome.

FAO/ECLA 1984 La pobreza rural. Santiago.

FAO/ECWA 1985 A study on agrarian systems and the eradication of rural poverty in Iraq, by A.S. Alwan. Baghdad.

FIELDS, G.S. 1980 Poverty, inequality and development. Paper presented at Conference on Poverty and Development in Latin America, Yale University.

FIGUEROA, N. 1978 La economia de las comunidades campesinas: el caso de la sierra sur del Peru. Lima, Universidad Catolica del Peru. Documentos de Trabajo.

GHAI, D. & RADWAN, S. (eds.) 1983 Agrarian reform and rural poverty in Africa. Geneva, ILO.

PEOPLE'S REPUBLIC OF CHINA. 1983 Selected statistics of China 1983. Beijing, State Bureau of Statistics.

UNITED REPUBLIC OF TANZANIA Economic Survey 1984. Dar es Salaam,
1984 Ministry of Planning and Economic Affairs

GRIFFIN, K. Land concentration and rural poverty. 2nd ed.
1981 London, Macmillan.

GRIFFIN, K. (ed.) Institutional reform and economic development
1984 in the Chinese countryside. London, Macmillan.

HOFFMAN, H. Poverty and poverty in Brazil: what is changing?
1984 Paper presented at Conference on Social Change in
Brazil since 1945. New York, Columbia University.

HOLLNSTEINER, M.R. Local initiatives and modes of participation
1977 in Asian cities. New York, UNICEF.

HUSSEIN, M. Credit for the rural poor - the Grameen Bank in
1984 Bangladesh. Dhaka, BIDS. Research monograph No. 4.

IDACHABA, F.S. et. al. Rural infrastructure in Nigeria; basic
1981 needs of the rural majority. Ibadan, University of
Ibadan

ILO Promotion of employment and incomes for the rural poor,
1983 including rural women, through non-farm activities.
Geneva.

ILO/JASPA First things first: meeting the basic needs of the
1981 people of Nigeria. Addis Ababa.

ILO/JASPA Rural-urban gap and income distribution; a comparative
1982a sub-regional study. Addis Ababa.

ILO/JASPA The basic needs in danger; a basic needs oriented
1982b development for Tanzania. Addis Ababa.

IMF International financial statistics. Washington, DC
1984

JOLLY, R. & CORNIA, G.A. (eds.) The impact of world economic
1984 recession on children. A study prepared for UNICEF.
Oxford, Pergamon Press

KHAN, A.R. & LEE, E. Poverty in rural Asia. Bangkok, ILO/ARTEP
1983

KHAN, M.M. Underdevelopment and agrarian structure in Pakistan.
1981 Boulder, Colorado, Westview Press.

KOO, H. The political economy of income distribution in South Korea. World Development, Vol. 12, No. 10.

LASSEN, C.A. Reaching the assetless poor; projects and strategies for their self-reliant development. Ithaca, N.Y., Cornell University.

LEE, E. Export-led rural development: Ivory Coast. In Agrarian policies and rural poverty in Africa, D. Ghai & S. Radwan (eds.). Geneva, ILO.

LIPTON, M. Poverty, undernutrition and hunger. Washington, D.C., 1983 World Bank. Staff working paper No. 597.

MAEDA, J. Peasant organization and participation in Tanzania. In Studies in rural participation, A. Bhaduri & M.A. Rahman (eds.). Geneva, ILO.

MARTINS, B. Nutrition and malnutrition in Sri Lanka. Geneva, ILO.
1983 WEP working paper.

PALMER, I. The role of women in agrarian reform and rural development. Land Reform, Land settlement and Cooperatives. Rome. No. 1, 1979.

PUFFER, R.R. & SERRANO, C.V. Patterns of mortality in childhood.
1973 Washington, D.C., Panamerican Health Organization.
Report No. 268.

RAJKRISHNA. Some aspects of agricultural growth, price policy and equity in developing countries. Food Research Institute Studies, Vol. 18, No. 3, p. 230

REYES, S.T. Regional income inequality in Mexican agriculture and government policy. Paper presented at 18th International Conference of Agricultural Economists, Jakarta.

ROYSTON, E. The prevalence of nutritional anaemia in women in developing countries. World Health Statistics Quarterly,
1982 Vol. 35, No. 2.

SEN, A.K. Poverty and famines: an essay on entitlement and deprivation. Oxford, Clarendon Press. 1981

SINGH, A. The continuing crisis of the Tanzanian economy; the political economy of alternative policy options. Cambridge, University of Cambridge (mimeo). 1984

SINHA, R. et al. Income distribution, growth and basic needs in India. London, Groom Helm. 1979

SOBHAN, R. The crisis of external dependence: the political economy of foreign aid to Bangladesh. Dhaka, University Press. 1982

SQUIRE, L. Balancing trickle down and basic needs strategies; income distribution issues in large middle-income countries with special reference to Latin America. Washington, D.C., World Bank. Staff working paper No. 335. 1979

STREETON, P. Development Perspectives. London, Macmillan.

SUBBARAO, K. Food security at the household level - a review of the role of PDS in South Asia. Paper presented at Conference on the Role of State Agencies in Food Security, New Delhi. 1985

UNDARAM, I.S. Anti-poverty rural development in India. New Delhi, D.K. Publications. 1984

TETZLAFF, R. Kenana - the biggest and most costly sugar plant in the world. Afrika, Vol. 25, No. 2-3, pp. 11-13. 1984

UN Technical papers prepared for the Ad Hoc Expert Group on Income Distribution and Development. New York, Department of International Economic and Social Affairs. 1983

UNCTAD Least developed countries: 1984 report. Geneva. 1984

UNDP Inter-organizational assessment of women's participation in development. New York. 1985

UN/ESCAP Transnational corporations and the Philippines banana export industry. Bangkok. Working paper No. 14. 1981

UNESCO Statistical yearbook 1984. Paris.
1985

UNICEF State of the world's children. New York.
1984a

UNICEF Statistics on children in UNICEF countries. New York.
1984b

UNIDO Industrialization and rural development. New York.
1978

VERNON, R. The dilemma of Mexico's development. Cambridge, Mass.
1963 Harvard University Press.

VON PISCHKE E. et. al. The political economy of specialized farm
credit institutions in low-income countries. Washington,
1979 D.C., World Bank. Staff working paper No. 446

WHO The incidence of low birth weight: an update. Weekly
Epidemiological Record, 59 (27): 207.
1984

WORLD BANK World development report 1980. Washington, D.C.
1980

WORLD BANK Malawi country report. Washington, D.C.
1981

WORLD BANK World development report 1983. Washington, D.C.
1983a

WORLD BANK World Development Report 1984. Washington, D.C.
1984a

WORLD BANK Malaysia: incentive policies in agriculture, Vol. 2.
1984b Washington, D.C.

WORLD BANK Sudan - review of mechanized rainfed farming.
1984c Washington, D.C.

M-54
ISBN 92-5-102488-X